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# ADAMS'

## TESTED SEEDS

Quality-Service

1882—1922



MARYLAND OR EARLY KNIGHT  
See Description Page 2

## T. LEE ADAMS SEED CO.

—LOCAL AND LONG DISTANCE PHONES:—

Home Victor 8404

Bell Main 0432

417 Walnut St., Kansas City, Mo.

# SPECIAL NOTICE

We make a specialty of supplying Market and Home Gardeners with the best strains of seeds that can be produced. We handle absolutely nothing that we do not believe to be the best obtainable. We do not claim to compete in prices with irresponsible parties, whose sole effort is to secure the lowest priced seeds, regardless of quality; such seeds are not cheap, but dear at any price. The first cost of seeds is insignificant, compared with time and labor that must be expended upon a growing crop. Quality is our first consideration, and the prices we offer are as low as first-class seeds can be sold for. It is our endeavor to maintain the prices quoted in this Catalogue throughout the season, but they are subject to change without notice.

## OUR "BUYER BE PLEASED" POLICY

Our policy is actuated by the personal interest we have in the results you get from our goods. Ordering seeds, fertilizer, or anything else purely on what the other fellow says is taking some risk, since it is impossible to know the results. There must be a connecting link of confidence. Therein lies our personal interest in your success. There are many conditions over which the buyer or seller has no control, but we want you to know that it is our aim and desire to please every customer. The satisfied patron is the best advertisement. This is the personal element in our definite policy—your guarantee for fair dealing.

## HOW TO ORDER AND REMIT—READ CAREFULLY

Use the order sheet in Catalogue if possible. Write your name, post-office, shipping point or nearest express office, your county and State.

**PREPAID ORDERS:**—We prepay postage on all vegetable and flower seeds, in packets, ounces, quarter pounds, half pounds and pounds, at prices quoted herein, to any point in the UNITED STATES, when CASH accompanies the order. This does not include these same articles as quoted in FIVE or TEN POUND lots. For such orders consult Parcel Post Rates below.

We do not prepay postage on Beans, Corn and Peas only at prices quoted in catalog. Neither do we prepay postage on Farm Seeds, Onion Sets, Potatoes, Bulbs, Fertilizers, etc. If wanted by Parcel Post, add postage. See postal rates below. The postage rate to CANADA, SOUTH AMERICA and the WEST INDIES is 12 cents per pound.

**BULK ORDERS OF SMALL SEEDS:**—WE WILL PAY the FREIGHT or EXPRESS CHARGES, our option, to your nearest Railroad Station to any point in the UNITED STATES on all orders amounting to TEN DOLLARS or more, provided the order is for SMALL SEEDS only, when cash accompanies order. This does not include PEAS, BEANS, CORN, POTATOES, ONION SETS, CLOVER SEED, GRASS SEED, VETCH, RAPE, IMPLEMENTS, FERTILIZERS, INSECTICIDES, BULBS, COW PEAS or GRAIN of any kind which are shipped at purchaser's expense. If there is only a slight difference between freight and express charges, we will send by EXPRESS. Remittances should be made by POSTAL MONEY ORDER, EXPRESS MONEY ORDER, CERTIFIED CHECK, or by REGISTERED LETTER.

**C. O. D. ORDERS:**—If goods are to be sent C. O. D. or SIGHT DRAFT BILL OF LADING ATTACHED, 25 per cent. of the amount must accompany the order.

Parties buying large quantities will be quoted special prices on application. Ask for Market Gardeners wholesale price list.

All prices are Net, and are made subject to market changes and prior sale.

## PARCEL POST RATE

**WEIGHT LIMIT:**—The weight limit in first, second and third zones is 70 lbs., in all other zones 50 lbs. Shipments of 20 lbs. or over are cheaper if sent by Express beyond the third zone.

### DOMESTIC PARCEL POST RATES WITHIN U. S. FROM KANSAS CITY, MO.

	First Pound or Fraction	Each Additional Pound or Fraction
First Zone, within 50 miles of Kansas City.....	5c	1c
Second Zone, within 50-150 miles of Kansas City .....	5c	1c
Third Zone, within 150-300 miles of Kansas City .....	6c	2c
Fourth Zone, within 300-600 miles of Kansas City .....	7c	4c
Fifth Zone, within 600-1000 miles of Kansas City .....	8c	6c
Sixth Zone, within 1000-1400 miles of Kansas City .....	9c	8c
Seventh Zone, within 1400-1800 miles of Kansas City .....	11c	10c
Eighth Zone, all over 1800 miles of Kansas City .....	12c	12c

If in doubt obtain your zone rate from your Postmaster. Express and freight rates are cheaper in large quantities. We make no charge for delivery to depot or express office. Bags are charged at cost.

# T. LEE ADAMS SEED COMPANY

Home Phone Victor 8404

Bell Phone Main 0432

417 Walnut Street

Kansas City, Missouri



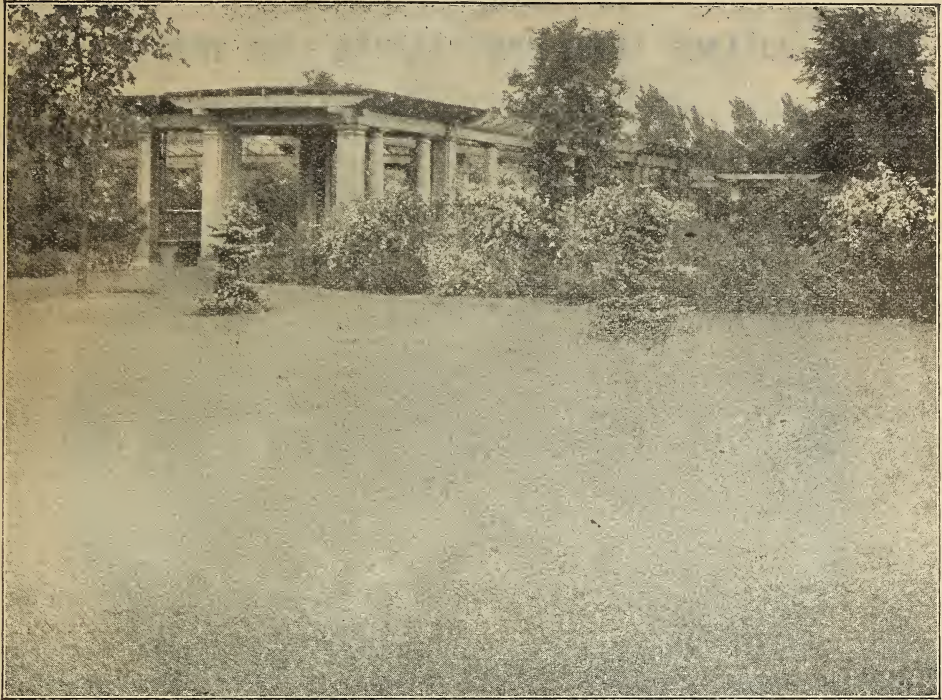
## ORDER SHEET—T. LEE ADAMS SEED COMPANY

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**GIVE BELOW NAMES OF FRIENDS YOU THINK MIGHT BE INTERESTED IN HAVING  
OUR CATALOGUE, AND WE WILL SEND THEM A COPY.**

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**ADDITIONAL ORDER SHEETS FURNISHED ON APPLICATION.**



## LAWN GRASS SEEDS

**Prices on Grass Seeds subject to change. The pound prices do not include postage; 100 pound prices are by freight or express, at purchaser's expense.**  
(Not less than 25 pounds at the 100 pound rate.)

The essentials for a fine lawn are: First, a rich, well drained soil; second, careful preparation of the ground, making it as fine and smooth and mellow as possible; third, a wise selection of seeds; fourth, sowing at such a time as to give the young plants a chance to become well established before being subjected to very dry or cold weather or to the direct rays of the hot summer sun. However much care is bestowed on the soil and seed, no lawn will be beautiful without frequent mowing and rolling. Too much care cannot be bestowed upon the selection of grasses, as some varieties are the most luxuriant in spring, others in summer, others again in autumn and a combination of the proper sorts is required for a perfect, carpet-like lawn. It may be planted early in spring or fall and should be sown at the rate of sixty to one hundred pounds per acre. If sown in the spring, sow as early as possible, making the surface very fine and smooth, then raking it over and sowing the seed just before a rain which, if the surface has just been raked, will cover the seed sufficiently. For fall seeding sow before the autumn rains and early enough to enable the young grass to become well established before very cold weather, when a light dressing of sheep manure should be given.

**QUANTITIES TO USE**—1 lb. for 300 square feet; 10 lbs. for 3,000 square feet; 20 lbs. for one-fourth acre; 40 lbs. for one-half acre; 75 lbs. for one acre. If intended to sow an old lawn about one-half of the above quantities are sufficient for the spaces given.

**SPECIAL MIXTURES**—We are at all times prepared to make up special mixtures of grasses for golf courses, ball grounds, polo grounds, parks, etc. We will be glad to figure with committees and give what information regarding the sowing of any plot of ground under prevailing conditions.

**KENTUCKY BLUE GRASS** (*Poa-pratensis*) Fancy Clean—Kentucky Blue Grass is the most nutritious, hardy and valuable of all northern grasses. Sown with White Clover it forms a splendid lawn; for this purpose use not less than fifty-four pounds of Blue Grass and six pounds of White Clover per acre. If sown by itself for meadow or pasture use about twenty-eight pounds per acre. 1 lb., 60c; 3 lbs. for \$1.65; for larger lots inquire for prices.

### ADAMS' "EVERGREEN" LAWN GRASS

This special mixture produces beautiful and permanent lawns. It is made from our own formula and composed of grasses which are adapted for the purpose of

producing turf which retains its rich green color and velvety appearance throughout the entire summer and fall. In making up this brand we are careful to use seed that has been thoroughly re-cleaned. 1 lb., 60c; 3 lbs. for \$1.65.

### SHADY PLACE GRASS

Usually it is quite difficult to obtain a satisfactory growth of grass under trees and in shady places. For sowing in such places we recommend the use of this special mixture. It will quickly produce an abundant and even growth of beautiful green grass. The grasses used in making this special mixture are only those that are well adapted for growing in shade, and as it blends well with our regular Lawn Grass Mixtures, it may be used on those portions of the lawn which are shaded by trees, buildings, etc., thus covering the whole area with a rich green sward. 1 lb., 60c; 3 lbs. for \$1.65.

### WHITE DUTCH CLOVER SEED

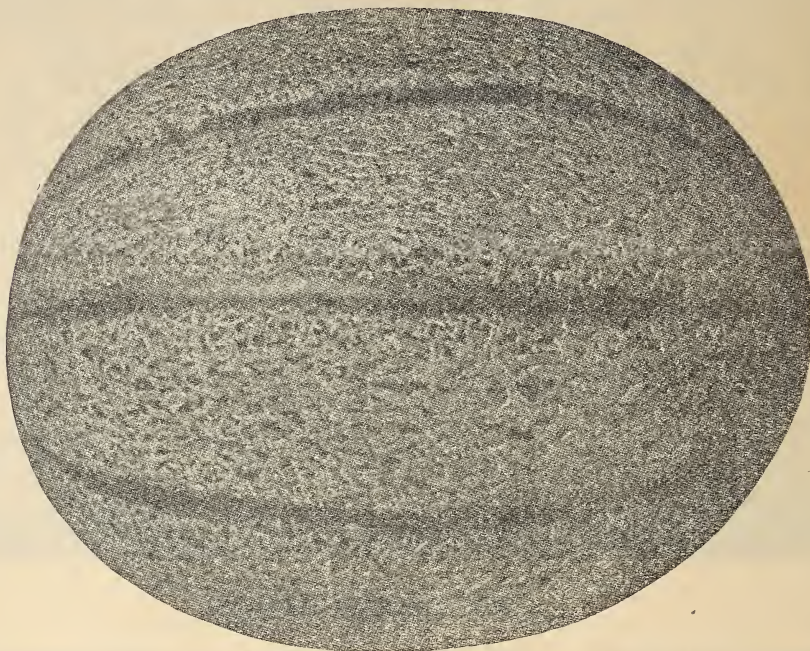
Excellent for use on lawns; forms a close herbage and remains green throughout the season. We furnish the choicest grade of seed. 1 lb., 60c.

**LAWN AND GARDEN FERTILIZERS**—See pages 58, 59 and 60 for quantity and use.

**MOLES**—If you are troubled with these pests in your lawn or garden we will gladly give you a positive recipe for their riddance.

## ADAMS' SEED SPECIALTIES FOR 1922

### MARYLAND OR EARLY KNIGHT MUSKMELON



Days to maturity, 90. A variety developed by a Mr. Knight of Anne Arundel County, Maryland. It is a melon of excellent flavor, of convenient and attractive size and of beautiful interior color—green edge with light golden yellow. The length will average 7 inches. It is 10 days earlier than Rocky Ford, twice as productive and larger in size. The vines are of a strong, healthy growth, branch freely, setting a large number of fruit close to the hill. The melons are fine, regular in size and form, nearly round or slightly oval, and very closely netted. The skin is of a light golden hue when fully ripened. Flesh bright green and ripens close to the skin. For the past two seasons it has brought the highest price in both New York and Boston markets. **Pkt., 15c; oz., 25c; ¼ lb., 50c; 1 lb., \$1.75, Prepaid.**

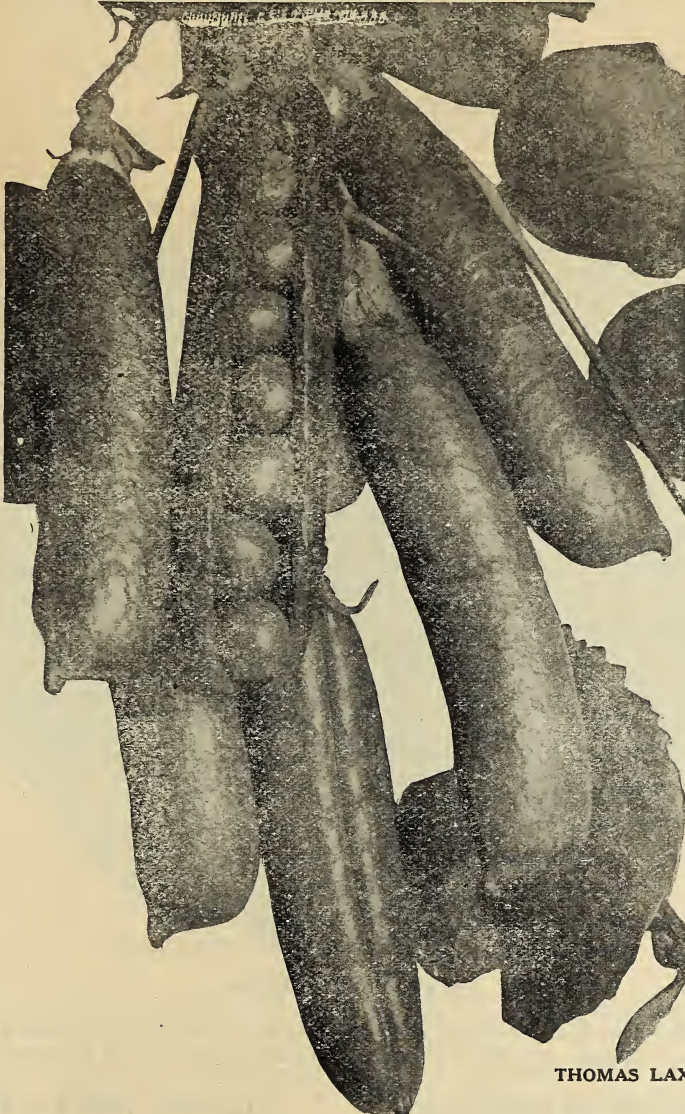
### ADAMS' STRAIN OF CHALK'S EARLY JEWEL TOMATO



**(Bright Scarlet.)**—Extra early in maturity, coming in very shortly after Spark's Earliana, but a heavier cropper, with fruits of larger size and sweeter flavor. It is bright red or scarlet; in quality and handsome appearance like the Matchless, but distinctly earlier. A particular advantage is its hardy, vigorous and robust growth, admitting of earlier setting in the field, as it is claimed that it withstands cool weather and blight where more tender sorts would be injured. It continues bearing through a long season. **Pkt., 10c; oz., 35c; ¼ lb., \$1.00; lb., \$3.50 postpaid.**

CHALK'S EARLY JEWEL

## THOMAS LAXTON PEA



THOMAS LAXTON PEA

**Days to Maturity, 57.** A variety having been originated in England by Mr. Thomas Laxton, of Bedford, a noted English horticulturist. This pea is hardy and slightly earlier than *Gradus* and a more abundant yielder. The pods resemble *Gradus* in shape, excepting that they are blunt ended. They will attain a length of three and one-quarter inches. They are straight, inclined toward roundness and are well filled. The vine will grow to a height of thirty inches. The seed is large, cream color, blended with pale green, wrinkled. Pkt., 10c;  $\frac{1}{2}$  lb., 25c; lb., 45c, postpaid.

## LITTLE MARVEL PEA

**Days to Maturity, 60.** The vines of this variety will grow to a height of fifteen inches, producing pods two and three-quarters to three inches in length. This variety resembles the *Nott's Excelsior* in vines, habit of growth and quality. The pods are considerably longer, very often being produced in pairs. They are straight, slightly broader than *Nott's Excelsior*, but not so broad as *Sutton's Excelsior*. It is a highly recommended variety for home garden purposes. The seed is green, wrinkled and of medium size. Pkt., 10c;  $\frac{1}{2}$  lb., 20c; 1 lb., 40c, postpaid.

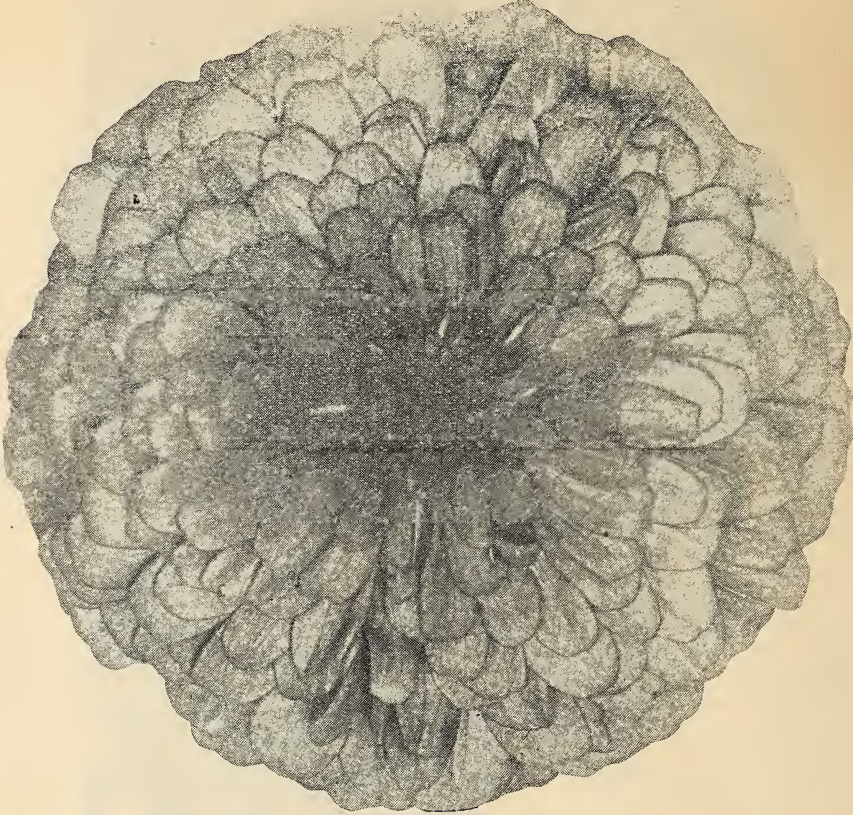
## BOUNTIFUL STRINGLESS BEAN

**Flat Pod**—A "Long Yellow Six Weeks," improved by earlier growth, hardiness, and more prolific yield. The plant is very handsome and of sturdy growth, being practically immune to rust and mildew. It is very hardy, early and prolific and continues in bearing for several weeks. The pods are of immense size, rich green, thick, broad, extra long, solid, meaty, rich, tender and entirely free from string. Pkt., 10c;  $\frac{1}{2}$  lb., 20c; 1 lb., 35c, postpaid.

# ADAMS'

## SPECIAL ZINNIAS

### GIANT FLOWERED



**MAMMOTH ZINNIA**

**SPECIAL:** To the lovers of this old-fashioned flower we offer this season a wonderful surprise in this special strain of seed. The descriptions below are not overdrawn.

#### EXTRA SELECTED BLACK KNIGHT ZINNIAS

The flowers are about two and one-half inches in diameter, very deep red, and the flowers often three inches deep when fully grown. We recommend this sort highly. Price—Pkt., 20c;  $\frac{1}{4}$  oz., 75c;  $\frac{1}{2}$  oz., \$1.35; 1 oz., \$2.50.

#### GIANT CRIMSON ZINNIA

Flowers 4 to 6 inches in diameter and of such glowing color that they are very attractive even from a long distance. The long, soft petals form so well-shaped flowers that they rival the finest Dahlias. Price, pkt., 15c;  $\frac{1}{8}$  oz., 30c;  $\frac{1}{4}$  oz., 55c;  $\frac{1}{2}$  oz., \$1.05; 1 oz., \$2.00.

#### GIANT CANARY YELLOW ZINNIA

Large flowers; long, soft petals. A very fine flower. Price, pkt., 15c;  $\frac{1}{8}$  oz., 30c;  $\frac{1}{4}$  oz., 55c;  $\frac{1}{2}$  oz., \$1.05; 1 oz., \$2.00.

#### GIANT VIOLET ZINNIA

An excellent flower; same type as above sorts. Price, 15c per pkt.;  $\frac{1}{8}$  oz., 30c;  $\frac{1}{4}$  oz., 55c;  $\frac{1}{2}$  oz., \$1.05; 1 oz., \$2.00.

#### GIANT WHITE

Same type as above. Pkt., 15c;  $\frac{1}{8}$  oz., 30c;  $\frac{1}{4}$  oz., 55c; 1 oz., \$2.00.

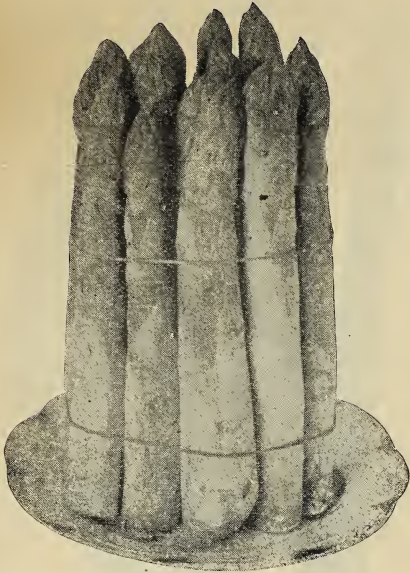
#### SUPERB MIXTURE OF GIANT FLOWERED ZINNIA

These were grown this year as a mixture. We took seed of Giant Crimson, Canary Yellow and White and mixed about one-third of each. This resulted in the finest mixture of Zinnias we have ever seen. The colors were so bright and lively. From this lot you will also get other colors resulting from the crossing of above colors. We hope every one of our customers will plant some of this seed. You will get far finer flowers than was thought possible from Zinnias a few years ago. Price, 15c per pkt.;  $\frac{1}{8}$  oz., 30c;  $\frac{1}{4}$  oz., 55c;  $\frac{1}{2}$  oz., \$1.05; 1 oz., \$2.00.

# GARDEN SEEDS BY MAIL

## ASPARAGUS

### MARKET GARDENERS



PALMETTO

And those using large quantities of seed should send us a list of their requirements. Prices will be furnished promptly, and we can frequently make a substantial reduction on large orders.

**FREE OF POSTAGE OR EXPRESS CHARGES.** Packets, Ounces, Two Ounces, Quarter Pounds or Pounds, ordered at list prices, will be sent free by mail or express.

Prices on all varieties of Asparagus: Pkt., 10c; oz., 15c;  $\frac{1}{4}$  lb., 30c; 1 lb., 75c, postpaid.

**CULTURE**—Beds are usually formed by setting roots. If you wish to grow plants from seed yourself, sow in spring in drills about eighteen inches apart and one inch deep. Planting fifteen or twenty seeds to each foot of row. Transplant same the next spring. If planted from roots, plant in rows eighteen inches apart eight inches deep and rows three and one-half feet apart.

**COLUMBIAN MAMMOTH WHITE**—A distinct variety, producing shoots which are white and remain so long as fit for use. Vigorous and robust in habit; grows large shoots. Needs no earthing up.

**GIANT EARLY ARGENTEUIL**—A splendid early French variety of large size and green in color; excellent flavor.

**PALMETTO**—Large, dark green variety of vigorous growth, having pointed tips. Early.

**CONOVER'S COLOSSAL**—Large and rapid grower of excellent quality; color, green.

**ASPARAGUS ROOTS**—Can supply two-year old Roots of above varieties 15c doz., \$1.25 per 100, \$8.50 per 1,000, at express office here.

If you grow Asparagus for the market, rubber bands are a necessity. For description and prices see page

## BEANS

### DWARF OR BUSH—GREEN PODDED

For Prices on Larger Quantities of Garden Seeds  
Send for Our Special Price List.

Prices on all varieties of Bush and Pole Beans except where noted: Pkt., 10c;  $\frac{1}{2}$  lb., 20c; lb., 35c, POSTPAID.

**CULTURE OF BEANS**—Beans are very sensitive to both cold and wet and it is useless to plant them before the ground is dry and warm. Plant in drills four inches apart, about two inches deep. Making the rows about two feet apart. Cultivation should always be very shallow up to the time of blossoming.

**BOUNTIFUL STRINGLESS**—Flat Pod—A "Long Yellow Six Weeks," improved by earlier growth, hardness, and more prolific yield. The plant is very handsome and of sturdy growth, being practically immune to rust and mildew. It is very hardy, early and prolific and continues in bearing for several weeks. The pods are of immense size, rich green, thick, broad, extra long, solid, meaty, rich, tender and entirely free from string.

**BURPEE'S STRINGLESS GREEN POD**—Is the first stringless green-pod dwarf bean in cultivation. It surpasses all others in crisp, tender flavor, and is also very prolific. The pods are ready to market one week earlier than Red Valentine.

**LONGFELLOW**—An extra early variety producing long green pods which are tender, brittle and stringless when young.

**BLACK VALENTINE**—A great improvement over the popular Red Valentine, the pods being perfectly round and straight, though not quite so early. It will withstand early and late frosts. Owing to the enormous yielding qualities and handsome appearance, it is a desirable sort for the market gardener.

**EXTRA EARLY ROUND RED VALENTINE**—This is one of the very best Snap Beans, being very early and of first-class quality. The pods are round, fleshy, crisp and tender. Very productive. The best Early Green Beans for the market gardener or private grower.

**GIANT STRINGLESS**—The Improved Valentine has for a long time been a very popular bean among market gardeners as well as those growing for their own table. In this new variety we have all the good points of the parent with some marked improvements. The pods, producing abundantly, are considerably larger, are round, full, fleshy and brittle.

**LONG YELLOW SIX WEEKS**—In many sections a popular market sort. When young, pods are of good quality. Very productive and hardy. Pods are long, straight and quite thick.

## LIMA BEANS—(DWARF BUSH)

**CULTURE**—Plant in light rich soil in drills two feet apart, dropping seed 3 to 4 inches apart in the row and cover three inches.

**FORDHOOK BUSH LIMA**—Similar to Burpee's Bush Lima except in size and are far greater producers, the blossom-bearing stalks are thrown well out of the foliage, and are ready for picking a full week earlier. Meat is of a very appetizing flavor. Whether you grow for home use or market, it will pay you to devote a good share of your garden to this "King" of all Limas. We wish we had space to devote to the many flattering reports received regarding this wonderful variety. Pkt., 10c; ½ lb., 25c; 1 lb., 45c, postpaid.

**HENDERSON'S BUSH LIMA**—A famous variety, grows in compact bush form, and produces enormous yields of truly delicious Lima Beans, yielding a continuous crop from July until frost appears.

**BURPEE'S BUSH LIMA**—A true bush form, growing 18 to 20 inches high; an immense yielding variety, each bush being laden down with very large beans of luscious flavor. Pkt., 10c; ½ lb., 25c; 1 lb., 45c, postpaid.

## BEANS—DWARF OR BUSH

### Wax—Podded Varieties

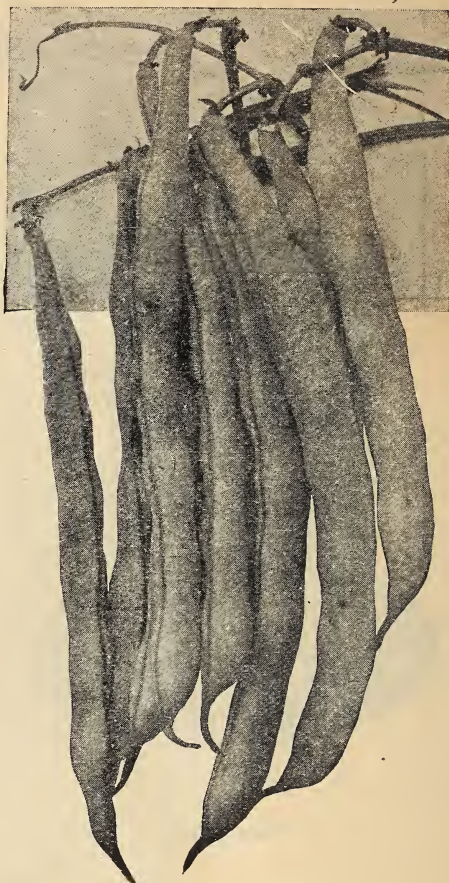
**PROLIFIC BLACK WAX, BLACK SEEDED**—This improved strain of Black Wax we offer under this name is exceptionally productive, very hardy, reliable and of the best quality. It is very extensively used for snaps for the home garden and market. The plants are medium sized, erect in growth, with small foliage, very vigorous, early intermediate in season with longer bearing period than most sorts. The pods are of medium length, four and one-fourth to four and one-half inches, borne well up from the ground, curved, cylindrical and fleshy. They are of a clear, light golden yellow color and remain a long time in condition for use as snaps. Seed small, oblong, jet black.

**PENCIL POD WAX**—This very handsome black wax sort is medium early, fairly hardy and productive. It is one of the very best sorts for home use and for near markets where highest quality is desired. The plants are strong growing with roughened leaves. The pods are long, five and one-half to six inches, straight, round, fleshy and of a bright yellow color. They are tender, absolutely stringless and are produced through a long season. Seed long, round, medium sized, solid black.

**CURRIE'S RUST PROOF WAX**—It has been claimed that this variety, usually midseason but sometimes earlier maturing, is absolutely rust proof and we have found it as nearly rust proof as any wax podded bean. The plants are very vigorous, hardy and productive. The pods are light yellow, similar in shape to Golden Wax but longer, about five and one-half to six inches in length. Seed long, oval, rounded at ends, medium sized, purplish black. This is a well known market gardening and truckers' sort in some sections.

**DWARF UNRIVALED WAX**—The pods of this dwarf variety are longer than Golden Wax and a little lighter in color, are rather narrow and somewhat flattened but fleshy, and when in proper condition for use are very attractive on the market. This variety usually matures soon after our Golden Wax and is sometimes as early. The plants are large and vigorous with leaves similar to Golden Wax in color and shape, but are a little larger. The pods when well grown are borne in abundance well up from the ground. Seed small, flat, slightly kidney shaped; color ochre-brown. This sort is suitable for market gardeners and is also used for the home garden.

**WARDWELL'S KIDNEY WAX**—This standard variety maturing a little later than Golden Wax, yields a large crop of long, nearly straight, broad, light golden yellow, handsome pods. These are of large size, about six inches long, and are of good quality. They always command a ready sale, making the variety one of the most profitable for the market gardener as well as shipper. This is also very extensively used for snaps for the home garden. The plants are strong growing and bear their long pods well up from the ground. The leaves are large, broad and slightly roughened. Seed large, flattened, kidney shaped, white with dark markings about the eye.



PROLIFIC BLACK WAX

**DAVIS WAX**—This is also called Davis White Kidney Wax. It is a well known market sort, much used for shipping. The plants are very hardy and productive and the variety is very desirable where a handsome wax-podded, white seeded intermediate sort is wanted. The plants are very vigorous. The pods are remarkably long, about six inches, sometimes longer. They are handsome, light yellow, straight, very attractive and when young are crisp and tender. The dry beans are excellent for baking. Seed medium large, kidney shaped, clear white.

**EXTRA EARLY REFUGEE**—An extra early, green podded sort; round, fleshy pods, slightly curved, of medium size, and fine quality. A most excellent bean for the early markets and stands shipment well.

**IMPROVED GOLDEN WAX**—Extended and careful tests have convinced us that none of the so-called improved strains is equal in general excellence to the seed we offer, which has all been carefully selected. Early, very productive. Vines erect, compact, bearing the pods well up from the ground. Pods of medium length, four and one-half to five inches, nearly straight, broad, flat, golden yellow, very fleshy and wax-like; cooking quickly as snaps, shelling well when green, and of the highest quality used in either way. Seed medium sized, oval, white, more or less covered with two shades of purplish red. The amount and shade of color on this and all parti-colored beans will be affected greatly by conditions of soil and ripening.

## BEANS—POLE OR RUNNING

**CULTURE**—A warm, sandy loam, enriched with well-rotted stable or poultry manure is best. Beans must not be sown until the ground is warm and dry. Plant 3 to 4 beans to a hill 3 inches deep. When well started, thin to 2 plants. Use 1 quart to 200 hills, 10 to 16 quarts to the acre. Plant lima beans 4 to 6 beans to a hill, 3 inches deep. When well started, thin to 2 plants. Use 1 quart to 100 hills, 20 quarts to the acre.

**KING OF THE GARDEN LIMA**—One of the largest and most prolific pole beans in cultivation, being a continuous bloomer and bearer to the end of the season.

**LARGE WHITE LIMA OR BUTTER**—Rich and finest flavor and estimated to be the best of pole beans.

**SMALL WHITE LIMA, CAROLINA OR SIEVA**—This very early and reliable small seeded pole lima is especially adapted for planting in the south. The vines are vigorous, with many short branches. The leaves are small, smooth, stiff, glossy dark green. The pods are dark green, short, about three inches, curved, flat. Seed small, flat, white with slight tinge of yellow. This is sometimes called Sewee. It is the most generally known "butter bean" of the south.

**KENTUCKY WONDER**—Also known as Old Homestead. We believe this variety is the most practically useful of the green podded pole beans suitable for use as snaps. It is an early, very prolific sort, with showy pods which are of most excellent quality. The vines are vigorous, climbing well and very productive, bearing pods in large clusters. The pods are medium light green, very long, often reaching 9 or 10 inches, nearly round and very crisp when young, becoming very irregular as the beans ripen.

**KENTUCKY WONDER WAX**—This remarkably vigorous growing, wax podded pole bean is very similar to the green podded Kentucky Wonder, but the very long pods are a little broader, very fleshy and quite stringless as snaps. The mature pods are often 8 to 9 inches in length. Seed medium size, oval, flattened, very irregular, dark brown. The seed even from the most matured crops is usually somewhat shriveled in appearance. Its earliness and hardness commend it as a pole bean well adapted even for Northern latitudes.

**LAZY WIFE**—The pods are produced in great abundance and measure from 6 to 8 inches in length; they are broad, thick, very fleshy and entirely stringless. The pods retain their rich, tender and stringless qualities until nearly ripe, and are unsurpassed in all stages. Each pod contains from 6 to 8 round, white beans, which make excellent winter shell beans.

**SPECKLED CUT SHORT, or Corn Hill**—An old variety, very popular in the Central and Southern states for planting among corn. It will give a good crop without the use of poles. Vines medium sized, but vigorous, twining loosely with dark colored leaves. Pods short, 3 to 4 inches in length, flat to oval, fleshy and of good quality.

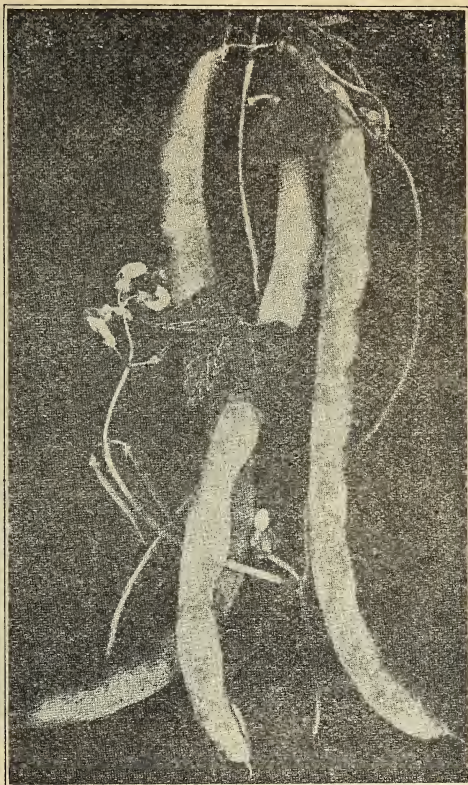
**WHITE KENTUCKY WONDER**—An early maturing green podded, white seeded pole sort desirable for snaps and unsurpassed in its class as green shell beans. The vines are vigorous and very productive. The pods are round, very long, often eight to nine inches, irregular in shape and quite stringless. The beans when shelled green are large, very tender and white, a very desirable feature when comparison is made with the colored beans of other varieties of this class. Seed medium long, oval or well rounded, solid white.

## BEETS FOR TABLE

For Prices on Larger Quantities of Garden Seed Send for Our Special Price List.

Prices on all varieties of Garden Beets, except where noted: Pkt., 10c; oz., 15c; ¼ lb., 25c; 1 lb., 75c, POSTPAID.

**CULTURE**—For earliest use and market sow seed of any round sort under glass, in February or March, and transplant to open ground in March or April. Seed for main crop may be sown as soon as ground can be put into proper condition. For table beets sow in drills 14 inches apart, and thin to stand 3 to 4 inches apart in the rows. Use one ounce to 100 feet of drill, and cover lightly; 6 to 8 pounds per acre. The round and turnip-shaped beets are best for spring and sum-



KENTUCKY WONDER

mer; the half long kinds for winter. Make successive plantings and cultivate freely. Beet tops are much used for greens, and frequently form a profitable crop with many of our market gardener customers.

**ADAMS' EXTRA EARLY**—This is fully as early and of much finer quality than the Egyptian; roots slightly flattened, very smooth and regular. The flesh is in alternate rings of light and dark pink, is particularly tender and sweet. Matures quickly making a fine market crop in seven to eight weeks from sowing the seed.

**ADAMS' EARLY WONDER**—The earliest of any beet in existence. It is of perfect globe shape with small tap roots. The color of the flesh is very dark red, which makes it splendid for pickling purposes. In flavor it cannot be surpassed. It is tender, sweet and juicy, retaining its crispness throughout the season. The foliage is of a very dark color, is very small, permitting close planting. This is one of the best acquisitions of recent years. Pkt., 10c; oz., 15c; ¼ lb., 35c; 1 lb., \$1.00, postpaid.

**THE ELECTRIC**—The best second early beet. The Electric is a thoroughbred, remarkably uniform in shape and size with smooth, dark red skin, small leaves and a small tap root. The flesh is fine grained and tender; color, rich red, ringed with dark crimson. We recommend the Electric Beet to all those wanting an extra fine table beet.

**DETROIT DARK RED**—A choice strain of dark red turnip. Fine globular or oval, smooth roots, with small tops, skin blood red, flesh dark red, zoned with a lighter shade, tender and sweet. Extremely popular for market and canning. (See cut following page.)

## BEETS FOR TABLE—Continued



DETROIT DARK RED—See Description, Page 7

**CRIMSON GLOBE**—Skin smooth and form regular. The flesh is a deep purplish crimson, slightly "zoned," sweet and tender. The foliage is small, of a rich bronze-purple.

**EARLY BLOOD TURNIP**—A well-known standard variety, rich, deep blood-red color.

**ECLIPSE**—Has become exceedingly popular for its extreme earliness, possessing all of the qualities requisite in a first-class beet. The roots are bright, glossy red, fine grained and delicious.

**CROSBY'S IMPROVED EGYPTIAN**—The earliest beet in the market, a selection from the old market beet. Early Egyptian, retains the earliness of the parent stock, and has added thickness, giving it a more desirable shape; it is the deepest red, almost black in color and of finer quality than the Egyptian, being sweeter and even more tender and smooth. The most desirable sort of small beets for early market.

**EDMANDS EARLY**—The beets are of round form, very smooth, extra early, and of good marketable size. Skin and flesh deep blood-red; extremely tender.

**DEWING'S IMPROVED**—Quite early, round, turnip-shaped, of good size, with deeply colored flesh.

**LONG SMOOTH BLOOD**—An excellent late variety.

**HALF LONG BLOOD**—The roots are about one-half as long as Long Blood, but on account of their thickness, weigh quite as much. Always smooth, very sweet, crisp, tender, never becoming woody, even portions above ground; we consider this is the most valuable sort of recent introduction.

**SWISS CHARD** (See Kale Beet)—This variety of beet is grown exclusively for the numerous, fleshy, tender leaves and leaf stalks, which are superior to those of other beets for use as greens. Later in the season the wax-like leaf stems are cooked like asparagus or are pickled. This variety we offer has large, broad, undulated or chards. It is well worthy of a place in the home garden as well as for market use. Swiss Chard is sometimes called Leaf Beet, Spinach Beet and Silver Beet.

## MANGEL AND SUGAR BEETS

Prices on all Stock and Sugar Beets: Pkt., 10c; oz., 15c;  $\frac{1}{4}$  lb., 25c; 1 lb., 65c, Postpaid.

**CULTURE**—Sow in the early spring as soon as seed bed can be put in proper condition, in drills 2 to 3 feet apart. Cover the seed with 1 inch of soil and thin to stand about 8 to 12 inches apart in the rows. Use 1 ounce to 100 feet of drill, 5 to 6 pounds per acre. A light loamy soil is best. Cultivate frequently. Keep free from weeds.

**MAMMOTH LONG RED**—A celebrated variety, sometimes called Jumbo. A very heavy cropper growing enormous in size, but of fine texture and quality.

**GIANT HALF-SUGAR ROSE**—Very large, smooth, and clean, of oval shape. The skin is rose-white with a deeper rose-colored top. The flesh is white, sweet and of high nutritive value. A heavy cropper.

**VILMORIN'S SUGAR**—A variety out of which much sugar has been made abroad; skin a cream color, flesh white; an average of 15 tons can be produced per acre.

**GOLDEN TANKARD**—Very showy, oval in form, flesh white, rich golden skin.

## BROCCOLI

The Broccoli is similar to the Cauliflower. They will produce heads in October and November, and should any plant not be developed enough to use before severe frost, let it be removed to a light cellar, where it will head during the winter. Packet, 15c, postpaid.

**BRUSSELS SPROUTS**—Packet, 15c, postpaid.

## DANISH AND AMERICAN GROWN SELECTED CABBAGE SEED



ST. LOUIS LATE MARKET

All varieties Cabbage, except where noted: Packet, 10c;

oz., 30c;  $\frac{1}{4}$  lb., \$1.00; 1 lb., \$3.00, postpaid.  
Sow one ounce for 3,000 to 4,000 plants; 4 ounces for one acre.

**CULTURE**—For plants of the earlier sorts sow seeds in January or February under glass and set out in flats or frames about 2 inches apart each way. Transplant to open ground as soon in spring as the land can be properly prepared. A rich, warm fibrous loam is best. Have the plants in the rows 20 to 24 inches apart, and rows at least 2 feet apart. Give thorough cultivation and irrigate in dry weather if practicable. Protect against the ravages of cutworm, maggot and green worm, dusting with tobacco dust, insect powder, etc.

## EXTRA EARLY VARIETIES

**COPENHAGEN MARKET (Imported)**—The earliest large, round-headed cabbage offered today. It is as early as Early Jersey Wakefield, heads perfectly round and very solid. It is very compact in habit and can be planted as close as Wakefield. The heads all mature at one time and will stand longer than the Wakefields before bursting. Heads average about eight pounds each. Packet, 15c; oz., 50c;  $\frac{1}{4}$  lb., \$1.75; 1 lb., \$6.00, postpaid.

**EARLY JERSEY WAKEFIELD**—The most popular very early cabbage with market gardeners all over the country. It is grown in enormous quantities for shipment to Northern markets. Unequaled for solidity, earliness, uniformity and trueness. Ours is a superior strain of seed.

**CHARLESTON LARGE WAKEFIELD**—Larger and later than the above variety. Valuable market sort.

**GLORY OF ENKHUIZEN (Imported)**—This early variety is very sure heading and of excellent quality. The plants are of vigorous growth, with large, rather spreading outer leaves which are noticeably curved and frilled. The heads are globular or very nearly round, very solid and of large size for so early a variety. Packet, 15c; oz., 50c;  $\frac{1}{4}$  lb., \$1.75, 1 lb., \$6.00.

## SECOND AND LATE VARIETIES

**EARLY DWARF FLAT DUTCH**—This is a most valuable second early sort, having comparatively few and short leaves. Head large, nearly round, or slightly flattened, very solid and uniform in size and shape.

**HENDERSON'S SUCCESSION**—A very large, flat-headed main crop variety, and excellent in every point. Good for truckers.

**BURPEE'S ALL HEAD**—An excellent variety for family or market garden. Large sized flat shaped heads. Quality very fine.

**HENDERSON'S EARLY SUMMER**—A fine, large, early variety, valuable for market. Heads keep longer without bursting than most of the early varieties. Can be planted closely together on account of having fewer outer leaves.

**ALL SEASONS**—This is a grand second early cabbage, of large size and A No. 1 quality. It is also valuable as a late sort. Larger in size than Early Summer.

**ST. LOUIS MARKET**—This variety originated at St. Louis, where for many years it has been the variety most largely grown. Is now extensively grown for market in nearly every state. It is unquestionably the best large late sort.

**PREMIUM LATE FLAT DUTCH**—This meritorious cabbage is so well known that a description seems unnecessary.

**DANISH BALL HEAD**—The most solid headed and best keeper, but not of large size.

**SURE HEAD**—Rightly named sure Head, never failing to make a remarkably fine, solid head, with few outer leaves. It is a strong, vigorous grower, ripening late for main crop, and uniform in size and color.

**CANNON BALL**—This entirely distinct short stemmed late variety was originated by a market gardener near Philadelphia two years ago, and we feel highly favored to be able to secure even a few pounds for our trade. Its principal merits are sure heading, very solid, and a splendid keeper. It is far superior to the Danish Ball Head. The best results are obtained by sowing the seed in frames and transplanting in the open not later than June 10th. Packet, 15c; oz., 50c;  $\frac{1}{4}$  lb., \$1.50; 1 lb., \$5.00, postpaid.

**MAMMOTH ROCK RED**—This is the finest variety of red cabbage, producing fine solid heads of extra good quality.

**AMERICAN PERFECTION DRUMHEAD SAVOY**—The Savoy Cabbage is not grown as much as it should be. The quality is very fine, especially after frost.

## CHINESE OR CELERY CABBAGE

This delicious Chinese vegetable belongs to the Cabbage family and closely resembles a well-grown Cos lettuce, but is heavier. We advise that the seed be sown about August 1 (not earlier). It does not succeed with transplanting. It is best to sow where the plants are to remain in rows  $2\frac{1}{2}$  feet apart, thinning to 18 inches apart in the row. Like Cabbage it is likely to club-root.

**WONG BOK**—This is the original Chinese-grown strain, producing a heavier and more solid head than the Pe-Tsai variety. Has a deliciously mild Cabbage flavor. Packet, 15c; oz., 50c;  $\frac{1}{4}$  lb., \$1.50, postpaid.

## CARROTS

For Prices on Larger Quantities of Garden Seeds Send for Our Special Price List.

Prices on Carrot Seed, except where noted, Packet, 10c; oz., 15c;  $\frac{1}{4}$  lb., 30c; 1 lb., 90c. Postpaid.

**CULTURE**—The carrot will do well in any good, well-worked soil. For early use, sow the seed when the apple is in bloom, in rows fifteen inches apart, and when two inches high thin out so that the plants stand four inches apart in the row. For fall and winter use, sow the seed from the 1st to 15th of June. The roots may be stored in cellar or pit covered with dry sand, where they will keep fresh and solid until late in spring. Sow one ounce of seed to 100 feet of drill, 2 to 3 pounds to acre.

**EARLY SCARLET HORN**—A small, extra early sort, suitable for forcing or first early planting out of doors. They grow to a length of about two inches and almost as thick. When young, quite tender and fine grained.

**CHANTENAY**—Days to maturity, 65. This French variety was introduced by Vilmorin, Andrieux & Co., of Paris. Chantenay may be considered the standard carrot for all general purposes. It is nearly two weeks earlier than Danvers Half-Long, and is slightly shorter and more stump-rooted than that variety. Its average length will be four and one-half inches, tapering slightly from well-set shoulders. The surface is smooth and a deep orange color, the flesh very crisp and tender, a much desired sort where quality is considered.

**DANVERS HALF-LONG**—Days to maturity, 80. Danvers Half-Long is a second early carrot, which is adaptable to varying soil conditions. It differs from the Chantenay in that it is perhaps two weeks later in reaching maturity, and will average five and one-half inches in length, tapering to a blunt point. The average diameter of the root is slightly smaller than Chantenay. The color is a rich, deep orange, and the quality of the roots is excellent. Danvers Half-Long is a very desirable carrot for stock purposes, inasmuch as it will produce a large tonnage per acre.

**LONG ORANGE**—An old standard for general use. A sure and heavy cropper. Roots long, tapering, and of a deep orange color.

**OXHEART OR GUERANDE**—Roots short, but very thick, smooth and handsome; flesh fine grained, tender and sweet. A fine variety for early market; color orange yellow.



EARLY SNOWBALL



CHANTENAY

## CAULIFLOWER

**CULTURE**—A vegetable requiring very rich soil, and plenty of moisture and careful attention. Not as hardy as cabbage in resistance to hot, dry or cold weather. Sow in hot-beds in January or February and when plants are large enough transplant. Set plants out 15 to 18 inches apart and rows two feet apart. When the heads begin to form, tie up the outer leaves to protect the head from sun and weather. One ounce will produce 2,000 plants.

**ADAMS' EXTRA SELECT, DWARF EARLY ERFURT**—The best in general cultivation for forcing and open ground. Head close, compact and large, measuring from 7 to 10 inches in diameter. Plants are quite dwarf and seldom fail to form a good sized symmetrical head. Packet, 20c; 1 oz., \$2.50, postpaid.

**DANISH GIANT OR DRYWEATHER**—This is a large variety, later than Snowball, and a very vigorous grower. On account of its leaf growth appears to stand the dry weather better than most varieties. Packet, 20c; 1 oz., \$2.50, postpaid.

**SNOWBALL**—The best variety for general use. Of dwarf habit and produces fine large white heads in a very short time. Always tender and sweet. An excellent sort for either spring or fall planting. Our seed is grown in Denmark by a specialist and cannot be surpassed. Packet, 20c; 1 oz., \$2.50, postpaid.

## CELERY

**CULTURE**—Sow in drills and tread the seed firmly in; thin out to an inch apart and keep the ground well worked and free from weeds; shade the young plants for a week or ten days and do not let the soil dry out. In order to secure stock plants cut off the tops once or twice before transplanting, which should be done before July, after the plants have attained a height of 4 to 6 inches. Sow 1 ounce of seed for 5,000 plants, 4 ounces for one acre. All Celery prices postpaid.

**WINTER QUEEN**—One of the best winter varieties and we recommend it especially to market gardeners. It is tall and forms a large bunch. The leaves are light green, which blanch to a creamy white. Grows a thick, solid, heavy stalk with a large heart. Packet, 10c; oz., 30c.

**DWARF GOLDEN HEART**—One of the best keepers through the winter. Packet, 10c; oz., 30c.

**WHITE PLUME**—This handsome sort is valued because naturally the stalk and portions of the inner leaves and heart are white; the whiteness does not show, however, until the plants are about one-third grown; it is unsurpassed for all uses and the earliest celery in the market. Packet, 10c; oz., 30c.

**PARIS GOLDEN SELF BLEACHING**—Similar to the White Plume in its self-blanching characteristics, but of a deep golden yellow color. Packet, 15c; oz., 50c.

**GIANT PASCAL**—Grows two feet high; the stalks are very broad, thick and crisp, and of a rich nutty flavor. The heart is golden yellow, very full and attractive in appearance. It blanches very easily and quickly. Packet, 10c; oz., 30c.

**CELERIAC, OR TURNIP-ROOTED CELERY**—Sow seed same as celery. Transplant in rows two feet apart, nine inches in the row. Thorough cultivation is necessary to secure good roots. Earthing-up is not necessary. Roots may be cooked or used as salad. Packet, 10c; oz., 25c.

## CHICORY

**WITLOOF**—A delicious winter salad, eaten usually with French dressing like cos lettuce. The root is long like a parsnip but the part eaten is the top of the root, with the young leaves, usually best when forced in the winter. Packet, 10c; oz., 40c, postpaid.

**LARGE ROOTED**—Leaves and stems used as salad, like Endive; root edible; if dried, roasted and ground can be used like coffee. Packet, 10c; oz., 30c, postpaid.

## CHIVES

(Schnittlauch.) The Chives are small members of the onion tribe, leaves very slender and appear very early in the spring; can be shorn several times during the season and used for flavoring soups and salads. Bulbs, 25c per bunch, postpaid.

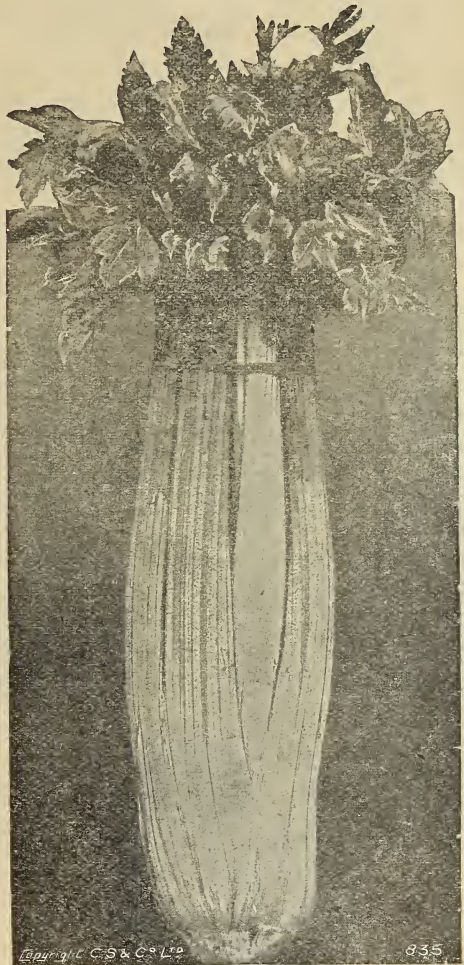
## COLLARDS

**COLLARDS**—This is a tall, loose leaved cabbage-like or kale-like plant grown throughout the south and known in different sections as "Cole," "Colewort," or simply "Greens." It is extensively used for the table as well as for stock feeding in the south where it continues in growth and is usable throughout the entire winter. Collards usually succeed in locations where cabbage cannot be grown to perfection. Sow the seed thickly in drills, in rich ground, transplanting when about four inches high; or sow in drills where the plants are to remain and when well started thin to two or three feet apart in the row. In the south, seed may be sown from January to May and from August to October.

(Georgia.) Headless variety of cabbage; the leaves used for boiling. Packet, 10c, postpaid.

## CORN SALAD—LARGE SEEDED

**CULTURE**—For winter use sow shallow in rows one foot apart during August or September. The plants are ready for use in six or eight weeks. When winter approaches give them a very light covering of hay or straw. The plants are hardy and will remain green and fit for use all winter. The seed may also be sown early in spring. Packet, 10c, postpaid.



WHITE PLUME

## CRESS OR PEPPER GRASS

**CULTURE**—A refreshing salad of easiest culture. As soon as the ground can be worked in the spring sow thickly broadcast or in rows eight inches apart. Repeated sowing may be made every two weeks for a succession.

**DWARF FINE CURLED**—A small pungent salad of easiest culture. Seed should be sown early in rows, about fifteen inches apart, and covered lightly; when two or three inches high it is ready for use. It is often mixed with lettuce and imparts a warm agreeable taste to the salad. Packet, 10c; oz., 20c, postpaid.

**TRUE WATER CRESS**—Succeeds only where the roots and stems are submerged in water. A highly prized salad of a pleasant and agreeable flavor. Should be planted wherever a suitable place can be found for it. Packet, 10c; oz., 60c, postpaid.

## CUCUMBERS

For Prices on Larger Quantities of Garden Seeds Send for our Special Price List.

All Cucumbers unless otherwise noted are, pkt., 10c; oz., 15c;  $\frac{1}{4}$  lb., 40c; 1 lb., \$1.25, postpaid.

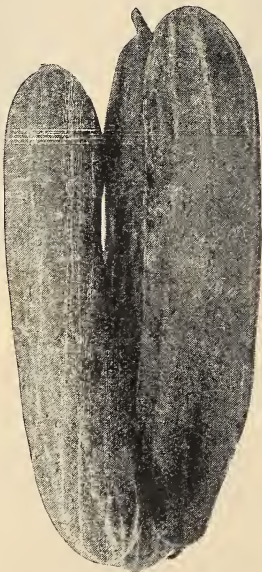
**CULTURE**—Flourish best in a rich, warm, sandy loam. Sow when danger of frost is over, in hills 4 or 5 feet each way. As the young plants have many enemies, sow thickly half an inch deep, and then thin out finally to three or four plants to the hill. Use one ounce of seed to 75 hills; two to three pounds to the acre. Gather Cucumbers by cutting, not tearing. Leave none to ripen, if you want a full crop. Use Bug Death or Slug Shot to keep down bugs.

### EARLY FORTUNE

This variety of cucumber was discovered several years ago in a field of "Davis Perfect," and is now so thoroughly established that large fields do not show any variation in plant or fruit. The vines make a strong and vigorous growth, producing abundant crops of cucumbers, which are slightly longer than Arlington White Spine, more cylindrical in shape and have a very dark green skin. The flesh is thick, seed cavity relatively small and the quality is excellent. This variety is one of the best introduced in years. Packet, 10c; oz., 15c;  $\frac{1}{4}$  lb., 50c; 1 lb., \$1.50.

**EXTRA LONG, OR EVERGREEN WHITE SPINE**—Beautiful in shape and color. Fruit long and cylindrical, dark green; flesh white, crisp and tender; finest quality.

**THE DAVIS PERFECT**—For years this variety was controlled by the originator, who states that he experimented several years in trying to get an improved strain of Cucumber for forcing under glass and outside culture. The Cucumbers grow long and slim, sometimes measure 12 inches in length; the color is a rich, dark, glossy green, which they hold until nearly ripe. It is very tender, brittle and of fine flavor. Packet, 10c; oz., 15c;  $\frac{1}{4}$  lb., 50c; 1 lb., \$1.50.



DAVIS PERFECT

**SHORT GREEN**—Extra Selected—A very superior stock which has been carefully selected for pickling by an extensive pickle grower, and we believe is today the most perfect strain in existence.

**KLONDIKE**—This has proven in every way a valuable acquisition, producing Cucumbers for every purpose for which Cucumbers are used, averaging from 6 to 8 inches in length, uniform in size, dark green color, retaining its color a very prolific yield. One of the best for home gardens, and a good market garden sort.



ADAM'S EARLY FORTUNE

**GREEN PROLIFIC**—Very productive, planted both for slicing and pickling. Four or five inches long when large enough to slice.

**JAPANESE CLIMBLING**—A vigorous grower, can be trained on trellis. Fruit from 12 to 16 inches long, dark green and smooth. Flesh pure white, crisp and tender.

**IMPROVED ARLINGTON WHITE SPINE**—This is a strain universally popular for growing under glass, but is unsurpassed for open ground.

**EXTRA SELECT SPECIAL LONG GREEN**—We have a superior strain of the well-known Long Green. It is smooth, uniform, long and straight. Packet, 10c; oz., 15c;  $\frac{1}{4}$  lb., 50c; 1 lb., \$1.50.

**LONG GREEN TURKEY**—An excellent variety. Good either for pickling or slicing: dark green; flesh firm and solid.

**WESTERFIELD'S CHICAGO PICKLING**—A deep green Cucumber with large and prominent spines of medium size and very prolific.

**JERSEY PICKLING**—This variety is between the Long and the Short Green, forming a long slender cylindrical pickle which is very crisp and tender. The vines are very vigorous and productive. The fruit is excellent for slicing as well as for pickling.

**WEST INDIA GHERKIN**—Days at it. One of the oldest varieties known in the West Indies of Jamaica. Introduced by Mintons in 1793. It is the smallest on the market and is considered the best for small pickles. The fruits will average 2 to 3 inches long and one-half inches in length and are very tender when young and tender. We would recommend you to the fact that the seeds are rather difficult to germinate, sometimes requiring from 2 to 3 weeks, therefore, we would recommend you to prepare seed bed. Packet, 10c; oz., 15c;  $\frac{1}{4}$  lb., 50c; 1 lb., \$1.50, postpaid.

# SWEET CORN

For Prices on Larger Quantities of Garden Seeds, Send for Our Special Price List.

All Sweet Corn except where noted, Pkg., 10c; ½ lb., 15c; 1 lb., 30c, Postpaid.

**CULTURE**—Sweet Corn always does well on sod land or where clover has been turned down. Plant when danger of frost is over, in hills 2x3 feet, or 3x4 feet, according to variety. Give frequent and continued shallow culture. Leave two or three stalks to the hill and make successional plantings until nearly mid-summer. Use one quart for 600 hills; six to eight quarts per acre. Cover seed with 3 inches of soil.

## EXTRA EARLY VARIETIES

**EARLY CHAMPION**—This variety is the earliest sweet corn yet introduced, being only a few days later than the first early small sorts. It is 10 to 12 rowed, and pure white in color; sweet and tender.

**EARLY MAYFLOWER**—A new variety in the West but raised in large quantities in some of the Eastern States where it is by ten days the earliest Sweet Corn grown, and is always the first variety on the market. It is six inches to a foot dwarfier than Early Corey, but very much larger in the ear, running 8, 10 and 12 rowed, and is considered of much better quality.

**ADAMS' EXTRA EARLY**—Not a sugar corn, but largely grown for early use.

**EARLY MINNESOTA**—One of the standard early sorts. Ready for market two weeks later than Cory or Chicago Market.

**MAMMOTH WHITE CORY**—A new extra early variety and a great improvement on the old Cory. The ears are handsome, even, broad grained and very large for such an early sort. They are borne two and three on a stalk, making it a very productive variety. One of the best extra earlies for home or market.

**ADAMS' POCAHONTAS**—Pocahontas was obtained by the careful painstaking effort of a New York truck-gardener to whom earliness meant all, and his work was eminently successful. The plant is of dwarf habit and very robust. The ears are of good size and are always well filled, having no gaps between the rows—a common fault of many early sorts. The flavor is excellent for so early a variety. While we recommend it primarily as a first early sort, it has been found to have great value for the latest crops, as it may be planted in this vicinity as late as July 15th, thus prolonging the season for Sweet Corn to its utmost length.

**GOLDEN BANTAM**—This is a new very early corn, and you will find it the sweetest and most tender corn you have ever tasted. It is deep yellow in color and very early, entirely different from the old Early Orange and much earlier. Can be planted thickly, and with every stalk had from 2 to 3 perfect ears. The introducer says that on account of the firm substance of the cured grains it can be planted earlier than any other sweet corn.

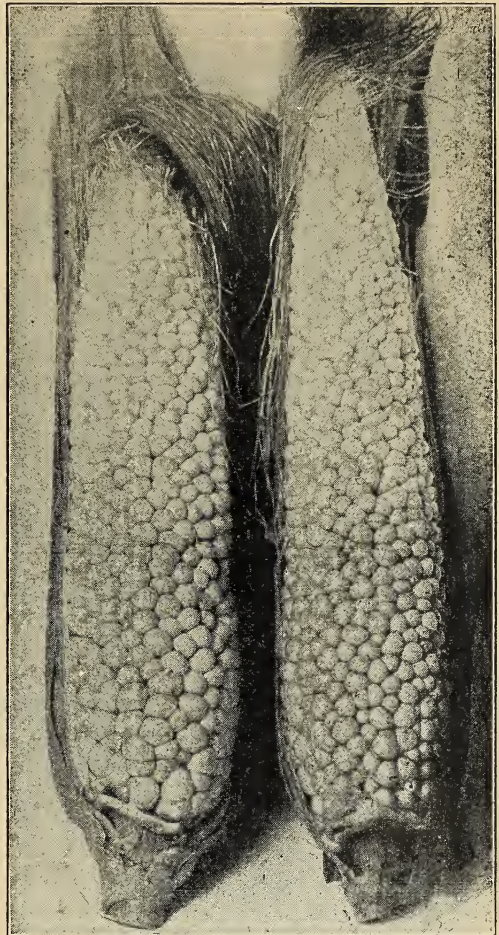
## SECOND EARLY VARIETIES

**EARLY HOWLING MOB** is ready for use only five days later than the extra early Cory when both are planted at the same time, but the ears are so much larger in size, while the grains are so much whiter and sweeter, that it should really be compared with the second-early Crosby's Twelve Rowed and other of a later season.

**EARLY EVERGREEN**—Like Stowell's Evergreen ten days earlier. Ears large, about 8 inches long, 16 rowed, and having the identical flavor of Stowell's Evergreen. It remains green a remarkable time and the kernel retain the sweetness and tenderness which is so characteristic of Stowell's.

**ADAMS' EARLY**—Not a sugar corn, but grown extensively all over the country for market purposes.

**BLACK MEXICAN**—A medium-early variety about six feet in height, ears eight inches long, filled with eight rows of large, rather flat grains. The grains are a bluish purple, of deliciously sweet flavor.



## COUNTRY GENTLE

**EARLY**—A beautiful variety. Grown extensively and other high-class trials.

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**GENTLEMEN, 70 days** frequently produced for so small a form of the very best.

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## LATER VARIETIES

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## EGG PLANT

**CULTURE**—Thrives well in any good garden soil. Sow the seed in hotbed or greenhouse in March or April, and when an inch high pot in 2 or 3 inch pots or pot out in shallow boxes 4 inches apart each way. Plant in the open ground when danger of frost is past, in rows 3 feet apart each way. One ounce will yield 2,000 plants;  $\frac{1}{4}$  pound for an acre. To prevent blight and bugs use Bordeaux Mixture with arsenate of lead, Paris Green or Bug Death.

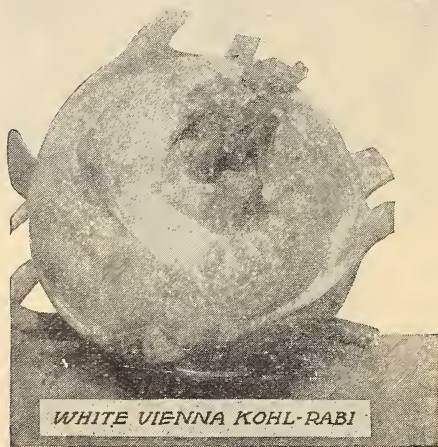
**IMPROVED NEW YORK**—Best variety in cultivation, a sure cropper and of fine quality. Plants are large and vigorous; fruit very large, oval and a deep purple color; flesh white and tender. Packet, 10c; oz., 50c.

**BLACK BEAUTY**—The earliest and best of all large-fruited egg plants. It is valuable alike to the private planter and to the extensive grower for market. Black Beauty produces fruits fully as large as and ready for use ten days to two weeks earlier than the New York Improved. The plants branch freely near the ground, and grow in well-rounded bushes. The grand large fruits are thick, of most attractive form, as shown in the illustration. The skin is a rich, lustrous purplish black—the satin gloss and rich coloring add greatly to the beauty. The intensely brilliant coloring is uniform over the whole fruit and does not fade or change to a light color at the blossom end, and is entirely free from spines or thorns. Packet, 10c; oz., 50c.



BLACK BEAUTY

## ENDIVE



### KOHL RABI

The edible part is the turnip-shaped bulb formed above ground. It is tender and excellent when used before fully grown, combining somewhat the flavors of cabbage and turnip.

**CULTURE**—Seed should be sown in light, rich soil as early in spring as possible in rows one and one-half feet apart and when well established thin to six inches apart in the row. Plantings at intervals of ten days will give a succession until hot weather, when they will fail to grow well. Plantings may be made the latter part of July for fall use.

**EARLY WHITE VIENNA**—Extra for Forcing—This variety is extremely early with distinctly small tops. The bulbs are of medium size, very light green, or nearly white, and are of best quality for the table if used when about two inches in diameter. Packet, 10c; oz., 30c.

**CULTURE**—Sow in the spring as soon as the earth is free from frost, and repeat to within sixty days of autumn frost. Drill in rows of 2 feet and thin the plants to 8 inches apart. Tie up the loose leaves or cover with pots to blanch for salad. Valuable for salads and highly decorative as a garnish to table vegetables. Two ounces of seed to 100 yards of row. Three pounds to the acre. All varieties, Packet, 10c; oz., 15c;  $\frac{1}{4}$  lb., 35c; 1 lb., \$1.00.

**LARGE GREEN CURLED**—A hardy vigorous growing endive with bright deep green leaves. The midribs of the outer leaves are usually tinged with rose. The dense mass of deeply divided leaves formed in the center blanches very readily to a rich cream color. This sort is highly esteemed for the market and home garden, and is much used for salads.

**EVER WHITE CURLED**—The plants are moderately dense, with divided leaves which are very light yellowish green in color, even the outer ones being very light. This variety blanches readily to an attractive creamy white.

**MOSS CURLED**—Plants compact growing, forming large, dense clusters of finely divided, medium green leaves which, when properly blanched, are rich creamy white, crisp and tender. Leaf stems sometimes tinged light purplish red.

**BROAD LEAVED BATAVIAN (Escarolle)**—A variety having broad, more or less twisted and waved bright deep green leaves with thick, nearly white midribs. The inner leaves form a fairly solid, clustering head which blanches to a beautiful deep creamy white and is crisp and tender. This sort is unsurpassed for salads and is much used for the home garden and market.

## KALE OR BORECOLE

All varieties, Packet, 10c; oz., 15c; ¼ lb., 35c; 1 lb., \$1.00, Postpaid.

**CULTURE**—Used largely for greens in fall, winter and spring. Can be sown broadcast or in drills eighteen inches apart from early September to the middle of October. Can also be sown in February and March, at which time the Spring or Smooth Kale is best to use. This is also used in the fall, as it makes greens quicker than other varieties. All should be protected with straw or coarse litter in winter, so that the plants can be cut throughout the season. Winter varieties can be sown at the rate of three to four pounds to the acre; the Spring Kale can be sown broadcast at the rate of eight pounds per acre, or four or five pounds in drills.

**DWARF GERMAN GREENS, 60 DAYS**—Sow in autumn for "sprouts" or "greens." Height 4 to 6 inches. Sow in permanent position.

**TALL CURLED SCOTCH**—Manage as winter Cabbage. Desirable for winter use. Sow in beds and transplant.

**DWARF GREEN CURLED SCOTCH**—Grows about 12 inches in height and spreads, under cultivation, to three feet in diameter. The leaves are bright green, beautifully curled and very tender. Allow to get a slight touch of frost before using.

### LEEK

**CULTURE**—Similar to onions in flavor, being of the same family of plants, but do not form a thick bulb. Sow seed early as possible, half an inch deep, and when plants are large enough to handle transplant to rows 12 inches apart, setting plants six inches apart. Hill up as they grow to bleach the stems, or plant in a trench like celery and fill in as they grow. Seed may also be sown in September and transplanted in Spring. One ounce will sow 190 feet of drill.

**MUSSELBURG**—An improved variety of Leek which grows to a very large size, with broad leaves, spreading like a fan. Pkt., 10c; oz., 25c; ¼ lb., 75c, Postpaid.

**LONDON, OR AMERICAN FLAG**—A popular sort, hardy and good quality. Grows quickly and ready at an early season. Pkt., 10c; oz., 25c; ¼ lb., 75c, Postpaid.

### GARLIC

**GARLIC**—The sets should be planted in well enriched soil early in spring, the rows one foot apart, and about three inches between the plants in the row. Harvest same as onions. Sets, lb., 50c, Postpaid.

### HORSE RADISH ROOTS

**HORSE RADISH ROOTS**—Do best in rich loose soil, set slanting and covered two inches. Per doz., 25c; per 100, \$1.50, Postpaid.



LONDON FLAG

## LETTUCE

For Prices on Larger Quantities of Garden Seeds Send for Our Special Price List

All Lettuce, except where noted: Packet, 10c; oz., 15c; ¼ lb., 25c; 1 lb., 90c, Postpaid.

**CULTURE**—For early out-door culture the seed may be planted in March, or as early as the ground can be worked. Sow in drills fourteen inches apart and thin the plants to four inches apart. For the heading varieties where large heads are desired plants should be thinned eight to ten inches to row. Lettuce should be grown very rapidly, therefore the soil should be as rich as possible, by liberal manuring and thorough preparation.

### LOOSE LEAVED VARIETIES

**BLACK SEED SIMPSON**—Days to maturity, 78. Will hold twenty-two days before shooting to seed. One of the most largely planted varieties in this country, and it is a loose-leaved lettuce, late-intermediate in attaining full development and, as noted above, slow to shoot to seed. The plant is fairly compact and consists of firm, well-blanching V-shaped clusters of leaves, the innermost heart curving inward and showing a tendency to form a head. The leaves are very much blistered, crumpled and twisted with large, protruding mid-ribs, and color is a very light green, never spotted or brownish. The quality is very fine, being sweet but somewhat firm in texture. Seeds are black. This variety must not be confused with the Early Curled Simpson, which is a white-seeded Simpson.

**GRAND RAPIDS**—(Seed Black)—As a lettuce for greenhouse forcing this variety undoubtedly stands at the head of the list, being of quick growth, hardy, little liable to rot and remaining in condition several days after being fit to cut. The plant is upright and forms a loose cluster of large, thin, bright green leaves, savoyed, finely crimped at edges. The leaves do not wilt quickly after cutting so that the variety will stand shipping long distances. Desirable for garnishing. (See cut following page.) Pkt., 10c; oz., 15c; ¼ lb., 40c; 1 lb., \$1.25.

**ADAMS' SATISFACTION**—A large, loose bunching or non-heading variety, forming a large bunch of leaves which are very crisp and of a fine flavor. In color it is a light green and very attractive.

**SIMPSON'S EARLY CURLED**—(Seed White)—A very extensively used early loose leaved, or clustering variety. Leaves light green, slightly frilled and much blistered, crisp, sweet and tender. The sort is especially adapted for sowing thickly and cutting when the plants are young.

## LETTUCE—Cont.



GRAND RAPIDS

See Description on Page 15

## HEADING VARIETIES

Blake & Son, Columbus, Kansas, one of the largest growers of hothouse lettuce, says: "We have found your Grand Rapids lettuce very satisfactory, indeed, as far as purity and germination are concerned. We could not ask for purer, stronger seed."

**NEW YORK OR WONDERFUL**—We were fortunate indeed to secure, direct from the grower, sufficient seed of this magnificent variety, for this year's needs. It was extremely popular with our local gardeners this past season. It is particularly popular in the south, where it withstands extreme heat and forms perfect heads of enormous size, which resemble cabbage in their solidity, measuring from 11 to 15 inches across, and frequently weighing 2 and 3 pounds each. The quality is superb, being crisp, rich and tender. Packet, 10c; oz., 25c; ¼ lb., 85c; 1 lb., \$2.50.

**LOS ANGELES**—This very large heading lettuce is desirable not only as a garden variety for summer use, but is much used as a fall and winter market sort, especially in the vicinity of Los Angeles. The plant is very large but compact and tight heading; outer leaves attractive deep green, broad, frilled at edges. The inner leaves form a large head, very sweet and tender when in condition for use.

**ADAMS' WAY-AHEAD**—A new, large, early head lettuce with but few outside leaves, heads about 10 inches across and perfect. Its large heads are formed of waxy-cream colored leaves of extra fine quality, tender, crisp, succulent and sweet; attractive and appetizing when served.

**PRIZE HEAD**—This variety has been in cultivation for many years and is well known to almost everyone. Forms loose heads; is slightly tinged with brown. Crisp and tender. Seed white.

**COS LETTUCE**—(Romaine)—This variety of lettuce is distinguished by its long, narrow, spoon-shaped leaves, folding into loose, sugar-loaf shaped heads which blanch better by having the outer leaves drawn about them and tied. The quality is distinct from that of the Cabbage Lettuces and by many is considered very superior. Sow early in spring in rich, well prepared soil, in rows eighteen inches apart, covering

one-half inch deep. When plants have two or three leaves thin to three or four inches apart. If large heads are desired plants should be thinned ten to twelve inches apart.

**UNRIVALED SUMMER**—(Seed White)—A large, bright green heading lettuce similar in habit of plant to Big Boston, but a trifle earlier maturing as an outdoor summer variety and having no red or bronze shading on the leaves. Heads are large, firm and of excellent quality.

**ADAMS' GOLDEN FORCING**—A very popular variety, originated on our market in Kansas City. Used largely by our market gardeners, either for open ground or forcing. Light in color: sometimes called Golden Forcing and resembles the Denver Market, but not quite as near a head variety. This is used largely for forcing. Pkt., 10c; 1 oz. 15c; ¼ lb., 40c; 1 lb., \$1.50, Postpaid.

**MAY KING**—A new variety and it is a great favorite. It is very early and being hardy will stand considerable cold, damp weather. It can be planted out of doors or under glass, and in either case will produce fine, solid heads.

**IMPROVED HANSON**—This is an exceptionally fine variety, attractive in appearance, and of highest quality; good for either spring or summer crop. The leaves are curly and very crisp and the head is large. It also stands a long time before going to seed.

**DENVER MARKET**—This is a fine crisp, crimped head variety. It has a slight tinge of red at the edges of the leaves. The ribs are a waxy white, being tender and free from bitterness.

**BIG BOSTON**—Identical in color, shape and general appearance with the famous Boston Market, but is double the size. It is about one week later, but its solidity and greater size makes it a most valuable sort. Most desirable either for forcing in cold frames or open ground planting. Popular with market gardeners and truckers because it always produces large, solid salable heads, which are crisp and tender.

## MUSKMELON OR CANTALOUPE



IMPROVED ROCKY FORD

For Prices on Larger Quantities of Garden Seeds Send for Our Special Price List.

Prices on Muskmelons, except where noted: Packet, 10c; oz., 15c;  $\frac{1}{4}$  lb., 35c; 1 lb., \$1.25, Postpaid.

**CULTURE**—Melons do best in sandy soil or sod land and the ground should be made rich. The hills can be put four to six feet apart with ten to twelve seeds in each hill. Put the seeds an inch deep and when danger of frost is over thin to four good plants to a hill. Cultivation should be kept up as long as possible. One ounce of seed is sufficient for 50 hills; 2 pounds per acre. Plant in May and June.

**MARYLAND OR KNIGHT**—(Description and cut specialty page 2.)

**DELICIOUS GOLD LINED MUSKMELON, ROCKY FORD**—Growers of muskmelons, both for home use

and for market, will be delighted with "Delicious Gold Lined." The melons are same size as "Rocky Ford," but specimens run more uniform as to size and shape, which is nearly round, and the skin is covered with a thick grayish netting, adding much to the appearance of the melon. The flesh is green, with slight golden tint next to the seed cavity, and the flavor is delicious, being remarkably sweet and juicy.

**EXTRA EARLY HACKENSACK**—A large round melon, very early and of high quality. The flesh is green and deep. The rind heavily netted and ribbed. This variety is about ten days earlier than the regular type of Hackensack.

**HOODOO**—A new orange-fleshed variety, ideal as a shipping melon and of the very finest quality. Vine vigorous, remarkably blight-resistant and very productive. Fruit of medium and very uniform size. Netting exceptionally fine and dense, extending practically over the entire surface. Rind thin, yet very firm, so that the melons arrive in perfect condition in distant markets. Flesh thick, firm, highly colored, of fine texture and delicious flavor. One of the best market melons offered today. Pkt., 10 oz., 15c;  $\frac{1}{4}$  lb., 40c; 1 lb., \$1.50.

**TIP TOP**—Tip-top in quality—tip-top in appearance—tip-top in productiveness. A heavy producer, of handsome appearance, round in shape and beautifully netted. Of excellent flavor, firm, sweet and juicy, and can be eaten almost down to the rind. Flesh yellow. Pkt., 10 oz., 20c;  $\frac{1}{4}$  lb., 50c; 1 lb., \$1.75, Postpaid.

**BURRELL GEM**—The latest and best melons on the market. A combination of the Rocky Ford and Acme. Shape elongated, rind thin and tough, meat of a reddish orange, very thick, fine grained and spicy; seed cavity very small and triangular and the seed held closely in place in three lobes. The popular melon with hotels, restaurants and commission men. Sells for more money than any other melon on the market.

**ROCKY FORD IMPROVED**—This valuable cantaloupe has today the largest sale of any melon on the general market. They are very uniform in shape and size, weighing from  $1\frac{1}{2}$  to 2 pounds, skin green and thickly netted; flesh of light green color and very sweet. The quality and flavor of these melons has never been equalled. It is a good keeper, hardy, and the best shipping variety ever introduced.

**PAUL ROSE**—Combines the good qualities of Osage and Netted Gem. Is of medium size, oval, deep salmon flesh and extra fine flavor.

**BANANA**—An entirely distinct variety, bearing long, slender, banana-like fruit. Skin creamy white and entirely free from netting. Flesh deep salmon color, thick and of good quality. Packet, 10c; oz., 15c;  $\frac{1}{4}$  lb., 50c; 1 lb., \$1.50.

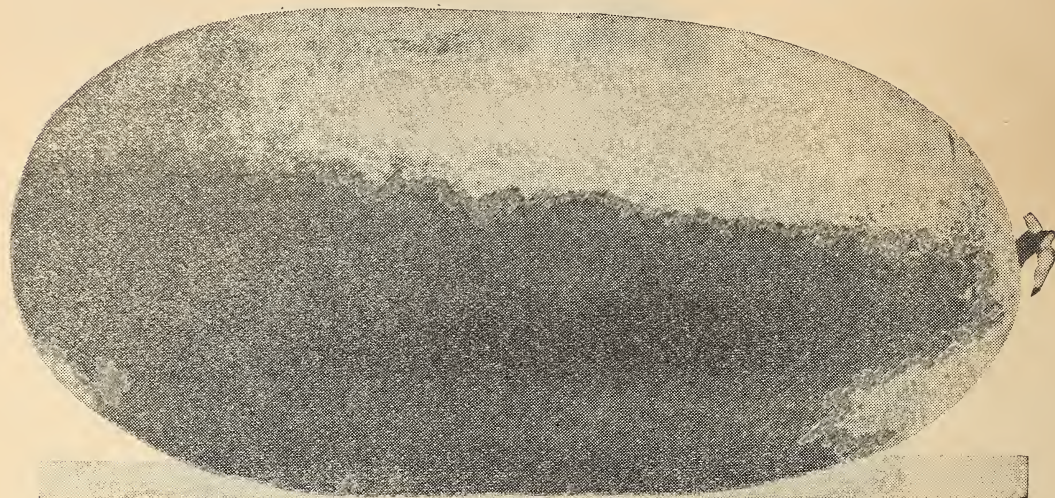
**HONEY DEW**—The melon with an appropriate name—A new member of the melon family, propagated after seven years of experimenting, is being introduced to California soil by a representative of large melon shippers of Chicago. The new fruit which is called the Honey Dew melon, is a cross between the Rocky Ford cantaloupe and a South Sea Island fruit. Packet, 10c; oz., 15c;  $\frac{1}{4}$  lb., 50c; 1 lb., \$1.50.

**NETTED GEM**—Practically the same as the "Rocky Ford." It has become one of the most popular of small, or basket melons. The description of the Rocky Ford is also to be applied to this variety. We offer an exceptionally fine stock.

**MONTREAL MARKET**—This variety is nearly round, flattened at the end, and very regularly ribbed; skin green, deeply netted; flesh remarkably thick, light green, melting, and of a delicious flavor. They are very regular in shape and uniformly grow to a very large size.

# NEW WATERMELON "IRISH GREY"

We Offer Only Southern Grown Seed, From Selected Melons.



IRISH GREY

All varieties of Melons, Except Irish Grey: Packet, 10c; oz., 15c;  $\frac{1}{4}$  lb., 25c; 1 lb., 90c, Postpaid.

**IRISH GREY**—A distinct and very valuable melon, the productiveness is wonderful, producing more good marketable melons under the same conditions than any other variety. The eating quality is all that could be desired in a watermelon, the sparkling red flesh is very sweet and entirely free from hard centers or stringiness, yet the flesh is very firm and compact and will not break when sliced. The size is uniformly large; color of rind, yellowish grey and almost as tough as that of the Citron; ripens earlier than Tom Watson; will keep in good condition for a long time after picking and stand long distance shipping. Another important feature, the rind will not sunburn, and will keep in good condition for several days in the sun after becoming ripe, while all dark rind melons will blister yellow on the top, which renders them unsalable. The IRISH GREY is beyond the experimental stage and you need not hesitate to plant it extensively. Average weight 25 lbs. Pkt., 10c; oz., 15c;  $\frac{1}{4}$  lb., 35c; 1 lb., \$1.25, Postpaid.

**TOM WATSON**—Days to maturity, 130. An extra long Melon of attractive appearance, uniform in shape and quality. The luscious crimson flesh is "as sweet as honey," melting, and of superb flavor. The average melon will weigh 35 to 40 pounds and measure about 28 inches long and about 12 inches in diameter. It is very prolific, producing in greatest abundance the large delicious fruits. We have greatest faith in the Tom Watson and believe it is one of the very best Watermelons ever offered. Introduced only a few years ago and has already taken a leading place with large melon growers and shippers.

**HARRIS EARLIEST**—Days to maturity, 100. The earliest variety grown and exceptionally large for so early a melon; handsome, uniformly of long oval shape and of first-class quality. Not only desirable for home use, but fine for shipping.

**HALBERT'S HONEY**—This new melon equals in flavor and is as handsome in color as the Kleckley Sweet, but more regular in form and much more productive. The melons are blunt at both ends and average eighteen to twenty inches long. Ten to twelve inches in diameter. Color of rind, clear, glossy deep green. Flesh a beautiful crimson, extending to within less than one-half inch of the rind. Very tender and sweet. Does not stand shipping well. It is a home melon for the home garden and local markets.

**KLECKLEY'S SWEET**—The finest of all medium early Water Melons for home use. The rind is too thin and tender to stand long distance shipment. The fruits are uniform in size, oblong in form; the skin is a rich dark green; the flesh, bright scarlet; the seeds lie close to the rind, leaving a very large, solid, red core. The flesh is rich, sugary and melting, being entirely free from stringiness.

**GYPSY OR RATTLESNAKE**—Days to maturity, 140. A variety of over thirty years' introduction, having been originated in Georgia. A very large home garden and shipping melon. It is especially successful in the South. The fruits are light green in color with mottled stripes of a darker shade. The flesh is tender and sweet. In the North this variety must be planted early, in order to mature properly and thus have the delicious flavor that has made it famous in the South.

**ALABAMA SWEET**—This is undoubtedly one of the finest shipping melons ever put on the market. It covers an unusually long season; coming in early, it continues to bear longer than most of the other varieties. It is a large size, good in appearance and the flavor is delicious. The fact that it can be transported long distances will recommend it to all growers for market.

**FLORIDA FAVORITE**—This melon is very popular with shippers, because of its extreme earliness, and all round good qualities as a good shipper. In appearance it is similar to the Rattlesnake, the rind being considerably darker.

## MUSHROOMS

**LAMBERT'S PURE CULTURE SPAWN**—Mushrooms may be grown in any place where conditions of temperature and moisture are favorable. A shed, cellar or cave may be utilized to advantage for this purpose. It is essential that the temperature be maintained from 53 to 60 degrees F., and that the moisture be properly regulated. Lambert's Pure Culture Spawn is far superior to the old style varieties and much better results can be obtained from its use. The bricks should be broken into pieces about two inches square and planted from ten inches to a foot apart. With every order of 10 or more bricks of mushroom spawn we send free of charge complete instructions for mushroom culture. Bricks weigh from 16 to 20 ounces. A brick will spawn ten square feet of bed. With Lambert's Pure Culture Spawn it is impossible to raise poisonous mushrooms. Per brick, 30c, postage paid; 10 bricks, \$2.00; 25 bricks, \$5.00; 100 bricks, \$18.00, by express or freight, purchaser's expense.

Write for our book, "How to Grow Mushrooms," price 25c, postpaid.



MUSHROOMS

## OKRA OR GUMBO

One ounce sows 50 feet of drill.

All varieties of Okra, Pkt., 10c; oz., 15c; ¼ lb., 25c; 1 lb., 60c, Postpaid.

**CULTURE**—Sow in May or June, after the ground is warm, in drills three feet apart, cover the seed with about 1 inch of soil and thin to 12 to 18 inches apart in the row. Use 1 ounce of seed to 50 feet of row; 8 pounds to an acre.

**WHITE VELVET**—A valuable variety characterized by round, smooth pods, free from ridges and seams. It is the most prolific Okra now offered, bearing 16 to 20 remarkably white pods per stalk; all well filled with tender well-flavored fruit, rich in mucilaginous properties. Dried in the shade the pods can be used for soups at any time.

**PERKINS MAMMOTH LONG POD**—A dwarf-growing very early and prolific variety. Pods are long, slender, deep green and of fine quality.

**DWARF GREEN**—An early dwarf and prolific variety, with thick, green pods.

## MUSTARD



CHAMPION MOSS CURLED

One ounce of seed will sow 100 feet of drill.

**CULTURE**—When used for salads, sow thickly in shallow drills, six inches apart. Successive sowings may be made every week or two. When grown to produce seed for use in pickles, pepper sauce, etc., sow early in rows about a foot apart and 3 inches apart in the row.

**CHAMPION MOSS CURLED**—The plants, of vigorous growth, have beautiful dark green leaves which curve outward like a fine ostrich plume. It stands well, even during the hot summer months. By making several sowings a few weeks apart a continuous growth of fresh tender leaves may be had throughout the entire season. Even those who do not care for mustard as a piquant salad will be delighted with the leaves of Moss Curled cooked like spinach, any time during the summer. It is even superior to the best spinach in flavor. Packet, 10c; oz., 15c; ¼ lb., 30c; 1 lb., 90c, Postpaid.

**WHITE ENGLISH**—Leaves comparatively small and smooth, deeply cut or divided and of medium dark color. Plant upright; of rapid growth and soon bolts to seed. Leaves when young are mild and tender; seed, light yellow and larger than that of other varieties. Packet, 10c; oz., 15c; ¼ lb., 25c; 1 lb., 75c, Postpaid.

**SOUTHERN GIANT, CURLED**—Leaves bright green, crimped and frilled edges. Highly esteemed for its vigorous growth, hardness and good qualities. Packet, 10c; oz., 15c; ¼ lb., 25c; 1 lb., 75c, Postpaid.



PERKINS MAMMOTH LONG POD

## ONIONS



## SOUTHPORT RED GLOBE

For Prices on Larger Quantities—Send for Special Price List.

**CULTURE**—Onions do best on a rich loam, previously cultivated for two years. Still clay and light sand are equally unfavorable. The land should be highly fertilized with well rotted manure, complete fertilizers, etc. Fresh stable manure has a tendency to produce soft onions. Drill in 4 to 5 pounds of seed per acre, one-half inch deep. If sets are wanted, use 60 to 80 pounds of seed per acre. Fifteen to twenty bushels of sets will plant an acre.

**EXHIBITION ONION, GIGANTIC GIBRALTAR**—By far the most dependable strain of the giant type of Onion. It is somewhat similar in appearance to Prize-taker, except that it is lighter in color, and, while larger in size, is a splendid keeper and of decidedly mild flavor. In some cases the Onions have weighed 3½ pounds, and are quite the largest we have ever seen. Comparative tests show that from an exhibition standpoint its longer period of growing warrants a trial against the favorite Ailsa Craig. To grow these extra large exhibition specimens, seeds are generally sown early in February, in a hotbed or greenhouse, and the young seedlings are transplanted. Pkt., 10c; oz., 25c; ¼ lb., 60c; 1 lb., \$2.00, Postpaid.

**RED WETHERSFIELD**—We confidently recommend our strain of this favorite onion as the very best ever offered. It grows with unusual regularity, and yields of over 1,000 bushels per acre have been reported to us from various sections. Onions weighing from one to two pounds are frequently grown from seed. Extensively grown by gardeners who ship to distant markets. Packet, 10c; oz., 25c; ¼ lb., 50c; 1 lb., \$1.75, Postpaid.

**SOUTHPORT LARGE RED GLOBE, SELECTED**—All grown from selected hand-picked bulbs, none but those perfect in size and shape being set for seed. Packet, 10c; oz., 25c; ¼ lb., 60c; 1 lb., \$2.00, Postpaid.

**YELLOW DANVERS FLAT**—A good onion for home or market use. A trifle flatter than Yellow Globe Danvers. Packet, 10c; oz., 25c; ¼ lb., 50c; 1 lb., \$1.75, Postpaid.

**SOUTHPORT WHITE GLOBE, SELECTED**—All grown from selected hand-picked bulbs, none but those perfect in size and shape being set for seed. Packet, 10c; oz., 25c; ¼ lb., 90c; 1 lb., \$2.50, Postpaid.

**YELLOW GLOBE DANVERS**—One of the most extensively used main crop yellow onions for the home garden and market. The bulbs are of medium to large size, uniformly globe shaped, with small neck, and ripen very evenly. The skin is rich coppery yellow. The flesh is creamy white, crisp and of mild and excellent flavor. The variety keeps very well and is excellent for shipping. Packet, 10c; oz., 25c; ¼ lb., 50c; 1 lb., \$1.75, Postpaid.

**WHITE PORTUGAL OR AMERICAN SILVERSKIN**—This is a medium sized onion of mild flavor and with beautiful, clear, white skin. The variety is a favorite with many for use when young as a salad or bunching onion and for pickling. It usually matures about ten days earlier than White Globe and is fine for fall and early winter use. It is an excellent medium early sort for gardeners who do not care to plant more than one variety. The bulbs are nearly round when of bunching size, somewhat flattened when mature. This is the best flattened white onion for northern latitudes. Packets, 10c; oz., 25c; ¼ lb., 60c; 1 lb., \$2.00, Postpaid.

**PRIZE-TAKER**—Globe shape with a bright straw colored skin, small neck, grows to an enormous size from the seed the first year. Packet, 10c; oz., 25c; ¼ lb., 50c; 1 lb., \$1.75, Postpaid.

## ONION SETS

Postage and Express to be Paid by Purchaser.  
Bottom Sets 32 Pounds per Bushel. Top Sets 28 Pounds per Bushel.

**RED BOTTOMS**—1 lb., 20c; 10 lbs., \$1.50.

**YELLOW BOTTOMS**—1 lb., 20c; 10 lbs., \$1.50.

**RED TOPS**—1 lb., 25c; 10 lbs., \$2.00.

**WHITE BOTTOMS**—1 lb., 25c; 10 lbs., \$2.00.

**WINTER TOPS**—1 lb., 20c; 10 lbs., \$1.75.

Prices subject to change.

## PARSNIPS



HOLLOW CROWN

**CULTURE**—Parsnips are usually grown in deep, rich, sandy soil, but will make good roots in any soil which is deep, mellow and moderately rich. Fresh manure is apt to make the roots coarse and ill-shaped. As the seed is sometimes slow and uneven in growth, it should be sown as early as possible in drills two and one-half feet apart; cover one-half inch deep and press the soil firmly over the seed. Give frequent cultivation and thin the plants to six inches apart in the row.

**HOLLOW CROWN OR SUGAR**—An excellent variety for the table. The roots are long, with smooth white skin, uniform in shape, tender and of the best quality. The variety is easily distinguished by the leaves growing from the depression on top or crown of the root. Packet, 10c; oz., 15c;  $\frac{1}{4}$  lb., 25c; 1 lb., 75c, Postpaid.

## PARSLEY

**CULTURE**—Parsley is easily grown, only it takes several weeks for it to come up, hence the ground where it is sown is often covered with weeds or dug over with the belief that the seed is no good. The seed may be soaked several hours in warm water before sowing which will hasten germination. Sow it early in the spring in rows a foot apart. It can also be used to border beds, making a very pretty effect. One ounce will sow a 150-foot row. A few plants can be taken up in the fall and put in pots or boxes in a sunny window and will continue to furnish leaves for flavoring or garnishing throughout the winter.

**MOSS CURLED**—A very fine strain with beautiful foliage; useful for all purposes. Packet, 10c; oz., 15c;  $\frac{1}{4}$  lb., 35c, Postpaid.

**DOUBLE CURLED**—A very compact, curly, fine cut, bright green variety. The market gardener's favorite. Packet, 10c; oz., 15c;  $\frac{1}{4}$  lb., 35c, Postpaid.

**PLAIN**—Hardy and vigorous grower. Not as mild a flavor as the above. Packet, 10c; oz., 15c;  $\frac{1}{4}$  lb., 35c, Postpaid.



PARSLEY

## PEPPER



RUBY KING

All Peppers, Pkt., 10c; oz., 50c;  $\frac{1}{4}$  lb., \$1.75, Postpaid.

**CULTURE**—Sow the seed  $\frac{1}{2}$  inch deep in hotbed, greenhouse or warm window, in March or April. After all danger of frost, set out in open ground. A warm, moist soil is best, with plenty of rotted manure plowed

under. Set in rows 2 to 3 feet apart, 18 inches apart in the rows. Cultivate frequently throughout the season to keep the soil mellow and free from weeds. One ounce will produce about 1,500 plants;  $\frac{1}{4}$  pound to transplant for an acre.

**CHINESE GIANT**—Is the earliest, largest and best of all the large red peppers grown, fully double the size of Ruby King.

**RUBY KING**—A mild-flavored pepper of large size, from four to six inches long by three and one-half to four inches thick. Unequaled by any other variety.

**GIANT CRIMSON**—The earliest maturing of the extremely large, red, sweet peppers, and surpassed by none in evenness of size and shape. Larger than Chinese Giant; earlier than any of the other very large sorts.

**BELL OR BULL NOSE**—Has an exceedingly thick meat and is the most desirable for slicing or stuffing. Can be eaten like an apple. Louisville truck growers and gardeners use it extensively.

**NEAPOLITAN**—Earlier than the other large Peppers. The fruits average  $4\frac{1}{2}$  inches in circumference by 4 inches long; they are thick-meated and unusually mild and sweet; flesh and skin bright red when ripe; productive, and continues fruiting throughout the season.

**OHIO CRIMSON**—The sweetest, largest and best of all peppers. It makes robust and heavy plants, large producer, very mild. Preferred by all market gardeners.

**LONG RED CAYENNE**—A long, slender red pepper, very hot and pungent.

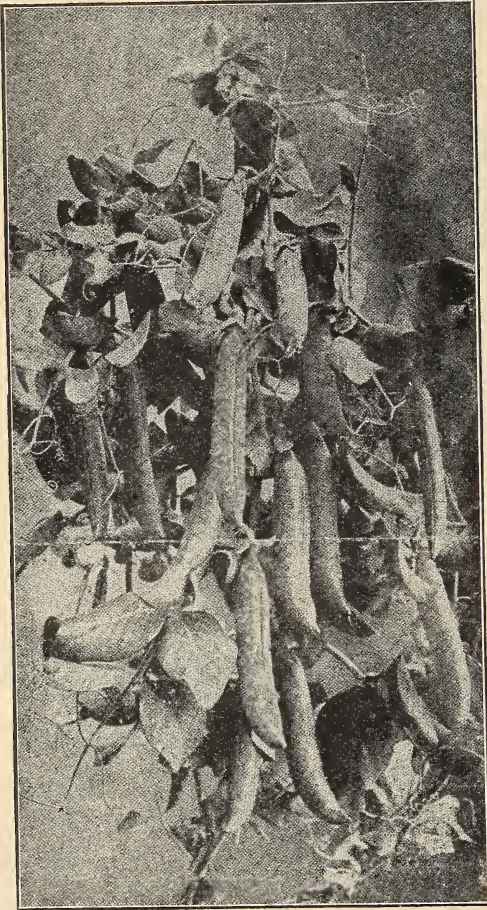
## Livingston's Improved Thick Long Red

A great improvement on the ordinary Long Red Cayenne—Pods of about the same length, but much thicker. The flesh is fully double the thickness of Long Cayenne. They are grown almost exclusively for some markets. Exceedingly prolific; are very hot and have handsome bright red pods. Produced early in the season while prices are high.

## PEAS

All Peas, Except Where Noted, Pkt., 10c; ½ lb., 20c; 1 lb., 40c, Postpaid.

**CULTURE**—Sow as early as possible a few of some of the early varieties in warm sandy soil. The seed can be sown in rows in a very satisfactory way. It is best to sow in an open way with a hoe, the full width of it and broadcast the seed thinly in the bottom. Later plantings should be of the wrinkled varieties, they are better yielders, sweeter and very highly flavored. Early varieties will mature in about fifty or sixty days, later varieties in about seventy to eighty-five days.



ADAMS' ELECTRIC

### NEW PEA—ADAMS' ELECTRIC— 52 DAYS

The earliest wrinkled pea and largest podded of the dwarf varieties. It is also one of the most vigorous in growth of vine and is unsurpassed in quality. The pods mature very nearly as early as those of Nott's Excelsior, but are broader and with the foliage distinctly lighter green. Pods large for so early a variety, 2¾ to 3 inches long. Vines about 14 to 16 inches high. Packet, 15c; ½ lb., 25c; 1 lb., 45c.

THOMAS LAXTON—For description see page 3.

**SUTTON'S EXCELSIOR, or Melting Marrow**—A new, early wrinkled sort, superior to the old Nott's Excelsior. Its light green, square-ended pods, long and broad, are uniformly well filled, averaging six to eight immense, rich green delicious peas. The vines grow about 15 inches in height, are very hardy, bear in great abundance, and are practically self-supporting.

**LITTLE MARVEL**—For description see page 3.

**GRADUS, OR PROSPERITY**—Without doubt the finest extra early pea yet introduced; it is in condition to pick four days after First and Best or Ameer. The pods are very large and well filled, with large wrinkled deep green peas of the very finest quality. Height, 3 feet.

**LAXTONIAN**—This is an ideal market and home garden pea, medium dwarf in habit of growth, but with very large pods, averaging 4 to 4½ inches in length. Laxtonian seldom has any blank spaces in the pods.

**PREMIUM GEM**—Dwarf, prolific, green wrinkled marrow. Is very early and of good quality. Larger and more vigorous than American Wonder and later. Height, about 15 inches.

**ALASKA**—The best early green seeded variety. Very early and uniform grower. A popular sort with canners and shippers. First-class in every respect. Height, 2½ feet.

**NEW EXTRA-EARLY "PILOT"**—This re-selected stock will surely delight planters. The Pilot is "far and away ahead" of all other early round-seeded first early peas. The pods and peas are nearly as large as those of Gradus, while they are produced three days earlier—as early as the best selected small smooth-seeded extra earlies. They can be planted, of course, much earlier than Gradus, and while not wrinkled, the peas are almost equal in flavor. The vines, of vigorous growth, attain a height of three feet and bear throughout the length of the vine quite a large proportion of pods in pairs.

### PEAS—LATER VARIETIES

**BLISS' EVERBEARING**—Grows from one and one-half to two feet high, of branching habit, pods from three to four inches long, containing from six to eight of the very largest peas, of particularly rich flavor. Unsurpassed in quality and very productive, continuing a long time in bearing.

**PRIDE OF THE MARKET**—A round, blue pea, with pods of enormous size, well filled. Requires no sticks and unequalled for productiveness. Of vigorous growth, attaining a height of eighteen to twenty-four inches.

**IMPROVED STRATEGEM**—One of the best of the large podded, semi-dwarf main crop varieties. The vines are very sturdy, about two to two and one-half feet high, with medium dark green foliage.

**TELEPHONE**—Very productive, of fine quality and excellent sugary flavor. Pods grow very large and closely packed.

**CHAMPION OF ENGLAND**—Universally admitted to be one of the richest and best flavored peas grown, and very productive. Height 4 to 5 feet.

**LARGE WHITE MARROWFAT**—One of the oldest varieties in cultivation and a favorite market sort. Pods large, well filled and of excellent quality.

# PUMPKIN



CONNECTICUT FIELD

All Pumpkins, except where noted, Packet, 10c; oz., 15c; ¼ lb., 30c; 1 lb., \$1.00, Postpaid.

**CULTURE**—Pumpkins will grow almost anywhere, but thrive in rich soil. In many varieties, the size and weight depend almost entirely on culture and fertility of the land. Many pumpkins are exceptionally good

for pies; other sorts are fit only for feeding live stock. Plant in hills 8x8 feet. Use one-fourth pound for seventy-five hills; three to four pounds per acre. Put seed in ground in May or June. Fight bugs with Bug Death, Slug Shot or air slacked lime.

**LARGE CHEESE OR KY. FIELD**—A popular variety. Fruit flattened, skin mottled light green and yellow; flesh tender; excellent quality.

**SWEET POTATO**—Pear shaped; size medium; creamy white in color, sometimes striped with green flesh, grained and very sweet. Packet, 10c; oz., 15c; ¼ lb., 35c; 1 lb., \$1.25, Postpaid.

**SMALL SUGAR**—Handsome and prolific; of small size, averaging about 10 inches in diameter. Skin deep orange yellow. Fine grained, sweet, dry and an excellent keeper; a good table variety.

**CONNECTICUT FIELD**—One of the best for field culture. Can be grown with corn, largely used for stock feeding. Deep, rich yellow color.

**KING OF THE MAMMOTHS**—No other pumpkin ever introduced has ever reached such enormous weights. Flesh and skin of bright yellow, very fine grained, of splendid quality, and notwithstanding its enormous size, it is one of the best pie pumpkins grown and a good keeper. Packet, 10c; oz., 20c; ¼ lb., 40c; 1 lb., \$1.50, Postpaid.

**CUSHAW CROCKNECK**—A prolific variety; large size; frequently weighing 60 pounds and over; color white striped and mottled with green.

# RADISH

For Prices on Larger Quantities of Garden Seeds Send for Our Special Price List.

All Radish, except where noted, Packets, 10c; oz., 15c; ¼ lb., 30c; 1 lb., 90c, Postpaid.

**CULTURE**—Sow in ground, well enriched with rotted manure. Quality depends on quickness of growth. The proper temperature is 40 to 65 degrees. Good ventilation is necessary if grown under glass. Sow seed ½ inch deep in the early spring in rows 12 to 18 inches apart; for a succession sow every 10 days. Cultivate frequently. One ounce to 100 feet of drill, or 8 to 10 pounds per acre. Thin to 1 inch apart for small varieties and 3 to 4 inches for the large varieties. Radishes will mature in from 3 to 5 weeks.

**ADAMS' PERFECTION WHITE TIP**—A very popular variety and largely grown for market. Small, round, turnip-shaped, of brightest scarlet, tipped with clear white; very quick to mature and handsome in appearance.

**EARLY SCARLET GLOBE**—The best radish for general use. The Early Scarlet Globe Radish is the best all-around radish on the market, and is therefore valuable for both the home gardener and the man who grows radishes for the market. You will find "Quality" in every ounce. It is handsome in both form and color, a beautiful oval and a rich scarlet; the flesh is crisp, tender, juicy and mild. The amount of its foliage is small compared with other varieties and small for the size of the radish, making it a particularly attractive market sort. As a forcing radish, Early Scarlet Globe is the best in every way, bearing the heat requisite for forcing without becoming pithy or spongy. This universally popular radish is sold by almost every seedsman in the world, and is also used by the leading market gardeners both for forcing and out-of-door planting. Owing largely to our care in selecting and growing seed, it leads all other varieties. Pkt., 10c; oz., 15c; ¼ lb., 40c; 1 lb., \$1.25, Postpaid.

**PHILADELPHIA WHITE BOX**—The famous white turnip or globe-shaped radish is the foremost of its class. It is an excellent radish for forcing under glass and for growing in the open ground. Its short top and rapid growth makes it a great favorite with market men, and its mild, sweet quality wins the favor of the consumer. Extensively grown by gardeners everywhere.

**EARLY WHITE TURNIP**—Of the same size and form as the Scarlet Turnip, which is so well known.



ADAMS' WHITE TIP SPARKLER

**SPARKLER**—This is a new extra early, white-tipped, round radish. It is distinct in that the white tip is larger and more pronounced than in any other sort. Much more of the root is white than shown in our illustration, and the contrasting colors being so nearly equal gives it a more attractive appearance than any of the varieties now on the list. Well adapted for either forcing in frames or for the private garden. Will brighten the whole table if placed in a glass dish where colors show to good advantage. Quality unsurpassed; remain solid and crisp a long time.

**EARLY SCARLET TURNIP**—A round, red, turnip-shaped radish with small tops and of very quick growth, deserving general cultivation on account of its rich, scarlet red color and white, crisp and tender flesh. Very desirable for early outdoor planting, as well as forcing.

**FRENCH BREAKFAST**—A quick growing, small olive shaped radish about 1½ inches long by ¾ of an inch in diameter when fully grown. Color, beautiful deep scarlet except a little clear white about the tip. Its small top and earliness make it very desirable for growing under glass as well as for planting outdoors.

**RADISHES—Cont.****WHITE ICICLE**

**ICICLE**—A splendid long variety of almost transparent whiteness. Produces nice roots in twenty-two days from the date of sowing, and it continues in prime condition for a long period, so that in one sowing of seed, nice, crisp radishes may be had from spring until midsummer. It is much the most popular sort in the entire list. There is no variety that grows more uniform in type, and there are none that surpass it in quality. We recommend it as the very best early radish.

**WOOD'S EARLY FRAME**—This is not only a very good variety for forcing, being shorter and thicker than the old Long Scarlet Short Top, but is one of the very best sorts for first crop out of doors.

**EARLY LONG SCARLET, SHORT TOP, IMPROVED**—This is a standard, most excellent sort, either for the home garden or the market. The tops are short and comparatively small. The roots are smooth, slender, uniform in shape and a very attractive bright carmine-red in color. They grow about one-fourth to one-third out of the ground and continue crisp and tender until fully matured, when they are about six inches long.

**WHITE STRASBURG**—Of handsome, oblong, tapering shape, both skin and flesh being pure white. The flesh is firm, brittle and tender and retains its crispness even if old and large. Excellent for summer use. Very popular because it remains fit for use a long time and does not get pithy. Sometimes called the Sandwich Radish.

**WHITE LADY FINGER**—Of slender, graceful form and remarkably crisp, brittle and tender. Not so good as Icicle for forcing but has long been popular for open ground culture.

**CRIMSON GIANT**—This Giant Radish develops bulbs twice the size of any of the existing round red and forcing sorts. The roots are very attractive, of a bright crimson color, flesh white, crisp, firm and tender. First-class for forcing or outdoor culture.

**SUMMER VARIETIES**

**IMPROVED CHARTIER OR SHEPHERD**—One of the best long radishes for planting outdoors for early summer use in the home garden, and used also for the market. The tops are of medium size. The roots are in good condition for the table when half an inch thick and continue hard and crisp until they reach a diameter of about one and one-fourth inches, thus affording good roots for a long time. The roots are rather long, averaging seven to eight inches when mature, bright scarlet-rose in color, shading into white at the tip.

**WHITE GIANT STUTTGART**—The roots are large, often four inches in diameter, white and are usually top shaped. The flesh is white and crisp, and keeps remarkably well, so that those not used in the summer or fall can be stored for early winter use.

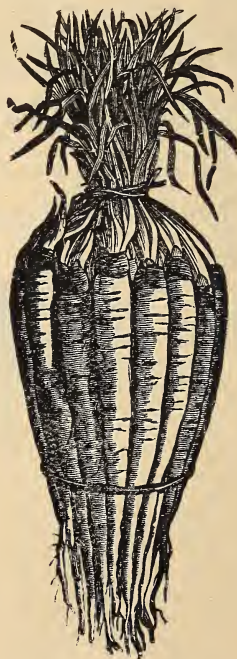
**WINTER VARIETIES**

**ROUND BLACK SPANISH**—Grows to a large size; very solid.

**CALIFORNIA WHITE MAMMOTH**—One of, if not the largest, radish. Often a foot or more in length. Firm flesh and keeps perfectly.

**LONG BLACK SPANISH WINTER**—Oblong, of very large size and firm texture, with dark green leaves. Is sown earlier than fall turnips and should be stored in cellar for winter use.

**CHINESE ROSE WINTER**—A bright scarlet winter variety. About four inches long and stump-rooted. Like Chinese White Winter, only red colored and two weeks earlier.

**SALSIFY  
MAMMOTH SANDWICH ISLAND****SALSIFY OR VEGETABLE OYSTER**

One of the most desirable winter vegetables. The roots when cooked are very palatable and nutritious and are served in a variety of ways. The flavor is similar to oysters. Salsify succeeds best in a light, well enriched soil, which should be stirred to a good depth. Coarse and fresh manure should be avoided, as it will surely cause the roots to grow uneven and ill-shaped. Sow early and quite deep, giving the general culture recommended for parsnip. The roots are perfectly hardy and may remain out all winter, but should be dug early in spring, as they deteriorate rapidly after growth commences. Frost does not injure the roots, but before the ground freezes a quantity for winter use may be stored in a pit or in a very cool cellar.

**MAMMOTH SANDWICH ISLAND**—This variety is large and strong growing with long, smooth, white, tapering roots, and is less liable to branch than the other sorts. Tops grassy. It is invaluable for market gardeners' use. Pkt., 10c; oz., 25c; ¼ lb., 60c; 1 lb., \$2.00, Postpaid.

## SPINACH

For Prices on Larger Quantities of Garden Seeds Send for Our Special Price List.

**CULTURE**—For early spring use, sow seed in August or September, in rich soil. Upon approach of cold weather, cover the plants with 3 inches of straw or soft hay. In the spring, when dry, remove litter and plants will be ready for use in a short time. Sow seed 1 inch deep in rows 1 foot apart or broadcast. For a succession sow every two weeks from April to June. Use 1 ounce to 100 feet of drill; 8 to 10 pounds per acre in drills; 20 to 30 pounds broadcast. All Spinach except where noted, packet, 10c; oz., 15c; ¼ lb., 20c; 1 lb., 40c, Prepaid.

**BLOOMSDALE, OR SAVOY LEAVED**—Of upright growth; leaves curled and crimped, thick and fleshy. Keeps well after cutting. Suitable for fall sowing.

**LARGE, ROUND, THICK LEAF VIROFLAY**—A most valuable variety with very large thick leaves, making it especially desirable where bulk is wanted.

**LONG STANDING**—Leaves dark green and thick. Not inclined to run to seed for a long time. Very popular with market gardeners.

**NEW ZEALAND**—The stems and leaves are soft, thick, fleshy, and of a crystalline appearance. Started early in the spring, the plants will resist heat and make a strong growth during the summer. Pick off the leaves from the stem, cooking them only, and you will have delicious greens all summer long. Packet, 10c; oz., 15c; ¼ lb., 35c; 1 lb., \$1.00, Postpaid.



**SQUASH**  
**GOLDEN SUMMER CROOKNECK**

## RHUBARB OR PIE PLANT

**VICTORIA GIANT**—This is a very large and late variety, with round stalks of great length and thickness; produces a succession of stalks the whole season; held in high esteem by the market gardeners. Packet, 10c; oz., 25c, Postpaid.

**LINNEUS**—Large and tender, very fine. Packet, 10c; oz., 25c, Postpaid.

**RHUBARB ROOTS**—Per dozen, \$1.00; per 100, \$6.00; Not Prepaid.

## SQUASH OR CYMBLING

**CULTURE**—About the same as melons. Make the ground very rich. A good sandy loam is best. The squashes are all tender, and the seed should not be planted until warm weather. Allow 4x4 feet for the hills for the bush squashes and 8x8 feet or more for the running varieties. Four plants to the hill; 3 to 4 pounds of seed to the acre. For summer squashes estimate 2 ounces to 100 hills; for winter squashes 4 ounces to 100 hills. Use Bug Death, or Slug Shot to keep down the bugs.



**WARTY RHUBARB**

## WINTER VARIETIES

**HUBBARD**—The leading squash for fall and winter use. Flesh dark yellow, fine-grained, being an ideal cooking variety. Very dry, sweet and rich. Packet, 10c; oz., 15c; ¼ lb., 50c; 1 lb., \$1.50, Postpaid.

**CHICAGO WARTED HUBBARD**—Is an exceptionally good keeper. Is larger than the original Hubbard and in addition is "warted" which indicates a hard shell and a long keeper. It also denotes fine quality. A great improvement over the old Hubbard. Fine for market or shipping. Packet, 10c; oz., 15c; ¼ lb., 50c; 1 lb., \$1.50, Postpaid.

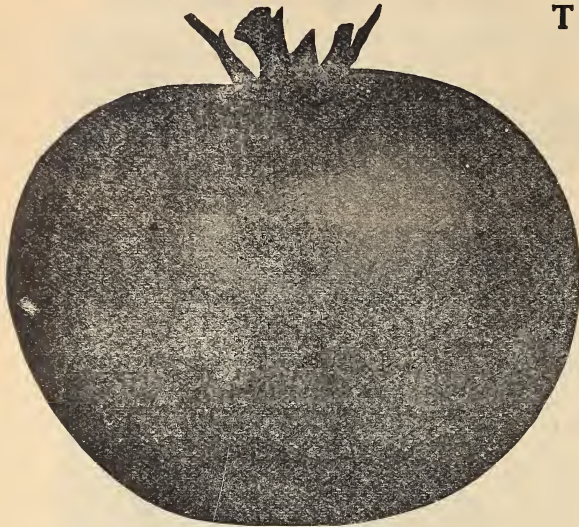
## SUMMER VARIETIES

**MAMMOTH WHITE BUSH**—The fruit is beautiful, clear, waxy-white instead of the yellowish white so often seen in the old stock, and is much larger. Packet, 10c; oz., 15c; ¼ lb., 40c; 1 lb., \$1.25, Postpaid.

**GOLDEN SUMMER CROOKNECK**—An old-time variety, grown extensively. It is early and productive and of good flavor. Packet, 10c; oz., 15c; ¼ lb., 40c; 1 lb., \$1.25, Postpaid.

**ITALIAN VEGETABLE MARROW (Cocozella di Napoli)**—Vines of bush habit, producing large, much elongated fruits, dark green at first but as they mature becoming marbled with yellow and lighter green in stripes. Fruits in best condition for the table when six to eight inches long, but can be used when much larger. The young and tender fruits when sliced and fried in oil constitute a vegetable delicacy very popular, especially in Naples. Packet, 10c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; 1 lb., \$1.25, Postpaid.

## TOMATO



BONNY BEST

All Varieties except where noted, Packet, 10c; oz., 40c; ¼ lb., \$1.00, Postpaid.

**CULTURE**—Sow the seed in February or March in a hotbed, greenhouse or in shallow boxes in the house, in rows 4 to 6 inches apart and half an inch deep. When the plants are about 2 inches high transplant to 3-inch pots or into shallow boxes 4 inches apart each way. Transplant in the open ground after all danger of frost is past, 3 to 4 feet apart each way. Cultivate frequently. One ounce of seed will produce 2,500 plants, enough for an acre.

## EARLY VARIETIES

**BONNY BEST**—The fruits of this desirable early sort are most attractive in shape and color. The crop ripens more uniformly than any other early scarlet fruited sort, and is of superior solidity and interior color. The vines are vigorous and produce a good crop of exceptionally round and deep fruits, bright deep scarlet in color and of very good quality. One of the best for gardeners whose trade demands fruits of beautiful shape and color. A very good variety for the early market and home garden.

**CHALK'S EARLY JEWEL**—See Specialty Page 2.

**SPARK'S EARLIANA**—Probably no earlier tomato has so large a sale as Spark's Earliana. Extremely early, remarkable for large size, handsome shape, and beautiful bright red color. Its solidity and fine qualities fully equal the best late sorts. One of the most profitable crops for the market gardener and especially desirable in the home garden.

**JOHN BAER**—An extra early scarlet fruited variety of superior merit. The vines are very hardy and exceptionally productive. The fruits are the largest of the extra early sorts and are also most attractive in color. They are nearly round, smooth, firm and of excellent quality. It is one of the very earliest to ripen and it continues to furnish marketable fruits much longer than other early varieties. It is an invaluable sort for market gardeners, shippers and canners.

**JUNE PINK**—This may briefly be described as a pink Spark's Earliana. About ten days earlier than most early sorts. Fruits medium size, smooth without cracks or green core. Skin is tough, thus making it a good shipper. Color is bright pink.

**EARLY DETROIT**—This splendid variety is the largest and best of the early purplish pink tomatoes. The vines are vigorous and very productive. The fruits are very smooth, uniform in size, nearly globe-shaped, firm, and of excellent quality. Early Detroit is one of the most valuable shipping tomatoes yet produced. It is also desirable for the home garden and near markets.

**MATCHLESS**—A splendid red, main crop variety. A splendid keeper and shipper. Less liable to crack in wet weather than most sorts. Fine for market or table. The plant is a strong grower. The fruits are large, perfectly smooth, free from core, with very small seed cavity.

**DWARF CHAMPION**—The best early tomato grown; entirely distinct in habit of growth and foliage; vines are dwarf and compact, grow stiff and upright, with thick, short jointed stems.

## LATE VARIETIES

**LIVINGSTON'S BEAUTY**—This standard tomato is too well known to need any introduction. It ripens with Acme and Perfection and is a model in beauty and shape, being entirely free from rough specimens. Grows in large clusters and retains its large size late in the season. It is very valuable for shipping and for early market. Color, purple.

**TRUCKER'S FAVORITE**—A very large purple tomato of superior quality, solid and free from cracks. An ideal shipper and a superb variety for the table.

**DWARF STONE**—A dwarf sturdy plant like the Dwarf Champion in habit, but of stronger growth. The fruits are large and resemble the original Stone. The shape is perfect, with good skin, very solid flesh and of excellent flavor. The plants are very stocky and do not spread much.

**DWARF PONDEROSA**—Dwarf plant and giant fruit. The fruit has the mild sweet flavor of Ponderosa, is also very large and meaty, with very little core. It is deep purplish-crimson in color and belongs to the later-fruited types. Packet, 10c; oz., 50c; ¼ lb., \$1.50, Postpaid.

**STONE**—The best main crop tomato for all purposes and largely used for canning. Vines tall and prolific. Fruit smooth, large and uniform. Color, bright scarlet.

**PONDEROSA**—This mammoth tomato is a great favorite for the home garden because of its immense size, stone-like solidity, delicious quality and beautiful appearance, whether stewed, sliced, fried, stuffed and baked, or canned. Contains very few seeds; is all "meat," and of perfect form. Is valuable to grow for market, and forces under glass. A very heavy yielder. Packet, 10c; oz., 50c; ¼ lb., \$1.50, Postpaid.

**GOLDEN PONDEROSA**—Large, smooth fruits of golden yellow, attractive for slicing and mixing with sliced red sorts. Pkt., 15c; oz., 50c, Postpaid.

**CRIMSON CUSHION OR BEEFSTEAK**—Large size, nearly round and of very good quality. The color is bright scarlet and flesh very thick and meaty. Pkt., 15c; oz., 50c, Postpaid.

## ADAMS' NEW GLOBE

It is of a beautiful globe-shape, with quite a percentage of elongated fruits, which permits of a greater number of slices being taken than with flat-fruited sorts. Among the very first to ripen, although of large size, very smooth, firm-fleshed, few seeds, ripens evenly; color a beautiful glossy rose, tinged purple. Flavor very delicate and agreeable; splendid slicing variety. The fruit is borne on short-jointed, branching plants in great abundance—literally loaded with fruit. A good general cropper, and one of the very best for greenhouse growing, or first-early crop. Pkt., 15c; oz., 50c; ¼ lb., \$1.50, Postpaid.

**GREATER BALTIMORE**—An excellent main-crop sort, producing large, solid, smooth fruit of a brilliant red color. It ripens evenly to the stem and is entirely free from ridges. Used extensively by canners. Pkt., 15c; oz., 50c; ¼ lb., \$1.50, Postpaid.

## PRESERVING TOMATOES

The following small-fruited varieties are used for making preserves, and are also quite ornamental. Pear-Shaped Red, Pear-Shaped Yellow, Yellow Plum, Each at 10c per Packet; 50c per oz., Postpaid.

## TOBACCO

**HAVANA**—From pure Cuban grown seed. When grown in this country commands a high price for cigar stock. Packet, 10c, Postpaid.

**MISSOURI BROAD LEAF**—Extensively grown in Kansas and Missouri; the large broad leaves are used for the wrappers. Packet, 10c, Postpaid.

**WHITE BURLEY**—Largely used for the manufacture of cigars, as the leaf of this variety readily absorbs a large quantity of manufacturing material. Packet, 10c, Postpaid.

## TURNIPS



## LARGE EARLY PURPLE TOP GLOBE

For Prices on Larger Quantities of Garden Seeds, Send  
for Our Special Price List.

**CULTURE**—Sow early varieties in April, in drills 12 to 18 inches apart. Cover seed one-half inch and thin out to 4 to 6 inches in the row. Cultivate frequently. For succession, sow at intervals until the last week in May. For Fall and Winter crop, sow in July or August in drills or broadcast. Use one ounce to 250 feet of drill; 1½ pounds per acre in drills or 2½ pounds broadcast.

**EARLY WHITE MILAN**—Entire bulb of a soft creamy white. Small tops and with a single small tap-root. Flesh pure white, fine grained, sweet, and tender. The earliest white Turnip, very smooth and handsome. Pkt., 10c; oz., 15c; ¼ lb., 30c; 1 lb., \$1.00, Postpaid.

**EXTRA-EARLY PURPLE-TOP MILAN (Strap-Leaf)**—This splendid new Turnip is the earliest in cultivation. The bulbs are flat, medium size, smooth, and free from rootlets, with thin skin and crisp white flesh of excellent flavor. The upper portion of the bulb is a rich purple, while the lower half is pure white. Pkt., 10c; oz., 15c; ¼ lb., 30c; 1 lb., \$1.00, Postpaid.

**PURPLE-TOP WHITE GLOBE**—The bulbs measure six inches and more in diameter, being of perfectly globe form; the upper portion is of rich purplish red, and the lower half is clear, creamy white. Flesh white, firm, and crisp, of mild flavor. It is an excellent keeper, and being so productive, is one of the best to grow for stock feeding. The plants, being of such large, strong growth, should be thinned more severely than with small early sorts. This variety is very extensively used for market growing. Pkt., 10c; oz., 15c; ¼ lb., 20c; 1 lb., 60c, Postpaid.

**PURPLE TOP (Strap Leaved)**—This is an early variety and a great favorite for table use; form exceedingly flat like a broad disk in shape, and of medium size; color, purple or dark red above ground, white below; flesh white, fine grained and tender. Popular for garden or field culture. Packet, 10c; oz., 15c; ¼ lb., 20c; 1 lb., 60c, Postpaid.

**SNOW BALL**—A fine-looking pure white variety which matures in from six to seven weeks. The bulbs have a smooth white skin and are nearly round. This Turnip does not grow large, but is one of the best to sow very early in the spring. It can be used before fully grown, in which case it is very tender and sweet. Pkt., 10c; oz., 15c; ¼ lb., 30c; 1 lb., \$1.00, Postpaid.

**RUTABAGA, AMERICAN PURPLE TOP**—Days to maturity, 90. This type of rutabaga has been grown in this country for a hundred years. The American strain is a selection from the older English type. It has been selected for a smaller top and shorter neck than is usually found in England. The roots are globular, but grow to a large size and are of splendid quality. An excellent sort for either table use or stock feeding. Pkt., 10c; oz., 15c; ¼ lb., 25c; lb., 75c, Postpaid.

## HERBS—SWEET, MEDICINAL AND POT

## Prices Postpaid

	lb.	¼ lb.	oz.
Anise .....	\$1.00	\$0.30	\$0.10
Basil, Sweet .....	2.00	.50	.15
Borage .....	1.25	.40	.15
Caraway .....	1.50	.50	.10
Coriander .....	1.00	.25	.10
Dill .....	.75	.25	.10
Fennel, Sweet .....	2.00	.60	.20
Horehound .....	5.00	1.50	.50
Lavender .....	5.00	1.75	.50
Marjoram, Sweet .....	4.00	1.25	.30
Sage .....	6.00	1.75	.50
Summer Savory.....	4.00	1.25	.50
Thyme .....	10.00	3.00	1.25
Sorrel .....	1.50	.50	.20

# FLOWER SEEDS

**THE SOIL** best suited to flowers is a light rich loam, made as fine and smooth as possible. If heavy, mix with sand to lighten and make it friable. Many seeds are very small and require a fine seed-bed. A good plan is to cover the place where the seeds are to be sown with coarse manure, leaves and other litter, and allow it to remain for a few weeks. The soil will then be finely pulverized and in splendid condition to start the seeds.

**SOW THE SEEDS** either broadcast or in rows, and cover lightly—a good general rule is to cover four to six times the size of the seeds—and press the soil firmly. Small seeds cannot come up if covered too deep. Very fine seeds should be sown on the surface and pressed into the soil. To have the earliest blooms, flowers that stand transplanting should be sown early in boxes indoors. Water with a fine spray, do not let the soil dry out, do not keep the young plants saturated, as they may damp off. When three or four leaves have formed, transplant one inch apart in boxes or in the open ground if warm enough.

**FLOWERS FOR SPECIAL PURPOSES**—To aid those not familiar with the uses to which flowers may be put, we have classified them below. Where a variety is suitable for two uses, we have entered it in both lists. Note carefully the heights of the plants so that a proper selection may be made.

**FOR CUT FLOWERS**—Antirrhinum or Snapdragon, Alyssum, Aster, Calendula, Calliopsis, Candytuft, Carnation, Flowering Centaureas, Chrysanthemum, Cosmos, Dahlia, Shasta Daisy, Dianthus or Pinks, Bush Escholtzia, Gaillardia, Heliotrope, Marigold, Mignonette, Nasturtium, Salpiglossis, Scabiosa, Stokesia, Stocks, Sweet William, Sweet Peas, and Zinnia.

**FOR EDGING AND LOW BORDERS**—Alyssum, Candytuft, Dusty Miller Centaureas, Daisy, Forget-Me-Not, Lobelia, Portulaca.

**FOR BORDERS AND BEDDING**—6 to 12 inches high. Alyssum, Candytuft, Dusty Miller Centaureas, Dwarf Cockscomb, Daisy, Dianthus, Forget-Me-Not, Lobelia, Mignonette, Pansy, Bedding Petunia, Dwarf Phlox, Iceland Poppy.

**FOR BORDERS AND BEDDING**—1 to 2 feet high. Ageratum, Antirrhinum or Snapdragon, Aquilegia or Columbine, Asters, Balsam, Calendula, Calliopsis, Candytuft, Carnation, Chrysanthemum, Coleus, Centaurea, Shasta Daisy, Dianthus or Pinks, Escholtzia, Forget-Me-Not, Heliotrope, Dwarf Larkspur, Marigold, Marvel of Peru, Mignonette, Dwarf Nasturtium, Nigella, Pe-

tunia, Phlox, Poppy, Salvia, Scabiosa, Stokesia, Stocks, Sweet William, Verbena, Vinca, Wallflower, and Zinnia.

**FOR MOUNDS AND ROCKERIES**—Alyssum, Candytuft, Lobelia, Portulaca, Thunbergia, and Verbena.

**FOR TALL BEDS, GROUPS AND BACKGROUNDS**—Amaranthus, Calendula, Calliopsis, Canna, Canterbury Bells, Tall and Plumed Cockscomb, Cosmos, Dahlia, Shasta Daisy, Digitalis, Hollyhock, Kochia or Burning Bush, Perennial Larkspur, African Marigold, Oriental Poppy, Ricinus, Salvia, Scabiosa, Stokesia, and Zinnia.

**FOR BASKETS AND VASES**—Alyssum, Dusty Miller Centaureas, Lobelia, Tall Nasturtium, Oxalis, Petunia,

**PLANT IN BOXES AND TRANSPLANT**—Ageratum, Alyssum, Aster, Calendula, Canterbury Bells, Calliopsis, Chrysanthemum, Cockscomb, Cosmos, Marigold, Marvel of Peru, Petunia, Ricinus, Salvia, Sweet William and Verbena. These may also be planted where they are to grow.

**ANNUALS** attain full growth from seed, bloom and die in one season. Sow hardy Annuals in March or April, or earlier indoors for transplanting outside. Hardy Annuals may be sown in the fall for early spring blooming. They make larger flowers and more brilliant colors than spring sowings.

**PERENNIALS** usually bloom the second year after sowing and continue to bloom for many years. Fall sowings or early sowings indoors usually produce blooms the next season.

**BIENNIALS** bloom the second year after sowing and then die. Like perennials, they may be sown early indoors or in the fall.

**HALF HARDY AND TENDER FLOWERS** should not be sown or transplanted outside until the weather is settled and warm. Cyclamen, Primulas, and Smilax are tender and should be kept in pots, shifting to larger pots as the growth requires.

**HORNY SHELLED SEEDS** like Canna, Evening Glory, Brazilian and Japanese Morning Glory should have a hole filed through the outer shell, or soaked in warm water 36 hours before planting.

## ASTERS

Seed may be sown outdoors as early in spring as the ground is warm and dry, or for earlier blooming may be started indoors or in a cold frame and transplanted in the open ground after danger of killing frost is over.

**VICTORIA**—The petals are broad and thick and curve outward, overlapping so regularly as to resemble those of the double dahlia. Plants about 18 inches high and very free flowering. Very much improved over the old Victoria type.

**MIXED**—Pkt., 10c; 1 oz., \$2.50.

**GIANT COMET**—In this class of Asters the petals are very long and recurved and twisted near the center. Plants branching about 2 feet high; more vigorous and taller growing than the ordinary Comet; flowers larger and equal in form. A desirable class coming into bloom rather late. Pure White, Pink, Dark Blue, Light Blue, Rose Red, Mixed. Each of above, pkt., 10c; oz., \$1.50.

**SEMPLE'S BRANCHING**—A class of very strong growing Asters, usually not coming into bloom until the latter part of August, but producing on very long stems full petalled, exceptionally large, double blossoms of fine form. Plants distinctly branching, about 2 feet high. Crimson, Dark Blue, Light Blue, Shell Pink, White, Finest Mixed. Packet, 10c; oz., \$1.25.

**QUEEN OF THE MARKET**—Very desirable on account of easiness as well as profuse blooming and wide range of colors. The plants are of branching habit,

about 18 inches high, bearing on long stems from 10 to 15 finely formed double flowers of medium size. Fine for cutting. The colors include white, pink, deep rose, violet and crimson. Mixed pkt., 10c; ¼ oz., 50c.

## AGERATUM

A beautiful, hardy annual of neat bushy habit. The attractive feathery flowers borne in dense clusters are very useful for bouquets. Very desirable for outdoor bedding and borders, being covered with bloom nearly all summer.

Sow outdoors after danger from frost is over; or for earlier blooming start under glass and transplant. Cover the seed with one-eighth to one-fourth inch of fine soil firmly pressed down. Dwarf, all colors, mixed. Height 6 inches. Pkt., 10c; ¼ oz., 20c.

## ALYSSUM

The annual varieties can be grown very readily either outdoors or in the house and by cutting back the plants properly an almost constant succession of bloom may be had. Seed can be sown in open ground very early in spring, or may also be sown outdoors in fall.

**LITTLE GEM** (Maritimum Compactum, Carpet of Snow)—A beautiful white sort for edgings, borders and rock work. The plants grow about six inches high, produce hundreds of flowers and form a compact mass of bloom usually fifteen to eighteen inches across. Hardy annual. Packet, 10c; oz., 30c.

**FLOWER SEED—Cont.****ANTIRRHINUM (Snapdragon)**

For gorgeous coloring few flowers can match Snapdragons.

The flowers of this new strain are of very large size, are very fragrant and are produced on immense long spikes, which render them extremely well adapted for cut-flowers. They are easily raised from seed in any rich sunny bed.

**TALL GIANT FLOWERING**

**QUEEN VICTORIA**—3 feet. Very beautiful, bearing immense flowers, white shaded cream, with lemon-colored lip. Packet, 10c;  $\frac{1}{4}$  oz., 25c.

**SILVER PINK**—Delicate rosy pink, seemingly covered with a silver sheen. Packet, 10c,  $\frac{1}{4}$  oz., 25c.

**CORAL RED**—Dark rose. Packet, 10c,  $\frac{1}{4}$  oz., 25c.

**BRILLIANT SCARLET**—Packet, 10c,  $\frac{1}{4}$  oz., 25c.

**MIXED**—Exceedingly bright and rich colors. Good house plant after finishes blooming all summer. Packet, 10c,  $\frac{1}{4}$  oz., 25c.

**BALSAM**

**DOUBLE MIXED**—One of the most beautiful of our annuals, and under the old names Lady Slipper and Touch-Me-Not, has always been popular, but by the care and attention given in the last few years, it has been greatly improved. The flowers are most brilliantly colored, very large and double, rich in colors, ranging from pure white to rich dark crimson. Packet, 10c;  $\frac{1}{4}$  oz., 25c.

**CALLIOPSIS**

**TALL MIXED**—Unlike other calliopsis this variety is a fine bedding plant as well as for bouquets. Very profuse bloomer. About 2 feet high. Packet, 10c; oz., 25c.

**CALENDULA**

Free-flowering plants of easiest culture, succeeding everywhere and flowering continuously. The improved varieties are extremely showy, having double flowers of large size and intense glowing colors. Seed may be started indoors early in pots or sown in shallow drills in the flower-bed early in spring when the trees are starting out in leaf. When well started, young plants should be thinned out or transplanted to stand six or eight inches apart. For flowering in pots, seed may be started in shallow boxes of light soil early in the spring or fall and the young plants grown on in flower pots for blooming. Fine mixed. Packet, 10c; oz., 25c.

**CANDYTUFT**

Considered indispensable for cutting. All varieties look best in beds or masses; hardy, easy to cultivate, and blooms profusely. Hardy annuals one foot high.

**BEST MIXED**—Mixture of all varieties and colors. Packet, 10c; oz., 30c.

**CANDYTUFT****CALENDULA****CARNATION**

**MARGUERITE FINEST MIXED**—The plants of this wonderfully fine strain may be made to bloom in four months. Flowers large, double, deeply fringed, very fragrant and appear in very attractive shades of color. Plants semi-dwarf. One of the best carnations in cultivation. Especially desirable for bedding as an annual and for cutting. Packet, 10c;  $\frac{1}{4}$  oz., 50c.

**RED GRENADIN**—For yielding a quantity of double red flowers, no outdoor Carnation can equal it. Pkt., 10c;  $\frac{1}{4}$  oz., 50c.

**COSMOS**

**MAMMOTH PERFECTION**—The plant grows from four to six feet high, and is literally covered with large single, Dahlia-like flowers, ranging through all shades of rose, purple, white, etc. Splendid for cutting; foliage feathery. Mixed packet, 10c; oz., 30c.

**EARLY FLOWERING**—These are dwarfer than those offered above, bloom earlier, in fact, at mid-summer the bushes are fairly smothered with their attractive flowers. Early Flowering, all Colors, Mixed, Pkt., 10c; oz., 50c.

**CENTAUREA CYANUS****(Bachelor Button)**

Two feet. Known as Ragged Sailor or Cornflower. It is not a pretentious plant, but will always charm by its simple beauty.

**DOUBLE BLUE**—Is now a standard variety and largely used by the commercial florist, who quickly recognized its value as a cut flower. Pkt., 10c;  $\frac{1}{2}$  oz., 25c.

**ALL COLORS MIXED**—Pkt., 10c; 1 oz., 25c.

**WHITE-LEAVED CENTAUREAS****(Dusty Millers)**

Silver-foliage plants; extensively used for edgings, hanging baskets, etc.

**CANDIDISSIMA**—Very thick, broadly cut, slippery white leaves. One foot high. Pkt., 10c.

**GYMNOCARPA**—Leaves fern-like; silvery gray color. Fine for borders;  $1\frac{1}{2}$  feet. Pkt., 10c.

**ESCHSCHOLTZIA**

**THE CALIFORNIA POPPY** is a showy, free-flowering plant of lowspreading growth, with finely divided foliage, blooming throughout the season. Seed should be sown thinly in shallow drills early in spring where the plants are to bloom. Where a solid bed is desired, seed may be thinly broadcasted and lightly raked in. This is the most effective way of planting this gorgeous flower. Single Mixed, Packet, 10c, Oz. 25c.

**FOUR O'CLOCK**

**MIRABILIS OR MARVEL OF PERU**—Sow seed in spring in open ground after danger of frost is over in any good, well prepared garden soil, and cover with  $\frac{1}{2}$  inch of fine soil, firmly pressed down. For the best development plants should be from 2 to 3 feet apart each way. Hardy annual, about 2 feet high. Large growing, shrub-like plants with funnel-shaped flowers of many colors. Mixed, Pkt., 10c; oz., 20c.

**FLOWER SEED—Cont.****HELICHRYSUM (Straw Flower)**

A hardy annual of the easiest culture; one of our best "Everlasting" flowers, the dried double blooms being very handsome in winter bouquets; 2 feet. Mixed, pkt., 10c; oz., 25c.

**HELIOTROPE**

Well-known and much admired border and bedding plants, highly valued for the blue color and fragrance of their branching clusters of small salver-shaped flowers as well as the duration of their bloom.

Sow the seed early in spring, in mellow soil indoors, and when plants are one to two inches high, put out into pots. Transplant to place when three to four inches high. Half hardy perennial; one and one-half to two feet high.

**ELEGANS LARGE FLOWERING PURE WHITE**—An improved large-flowering strain, superior to the common Elegans not only in size of flowers but also in color. A very charming sort for combining in bouquets with Sweet Peas or other cut flowers. Packet, 10c; oz., 50c.

**ELEGANS MIXED**—Very small, delicate white and rose pink. Packet, 10c; oz., 40c.

**GAILLARDIA****GAILLARDIA**

The Blanket Flower. Exceedingly beautiful annuals, making very showy plants, 1 to 2 feet high. Grown in mass are especially effective.

**ANNUAL MIXED**—Improved sort, producing a very double flower, round as a perfect ball, in most varied and pleasing colors. Flowers are borne on long, slender stems and when cut keep for over a week. Packet, 10c; oz., 40c.

**GRANDIFLORA**—A splendid new perennial variety, with very large flowers, dark crimson centers, marked with rings of many brilliant colors; makes a nice showing in the yard. Packet, 10c; oz., 40c.

**ANNUAL LARKSPUR**

Flowers are borne in compact spikes and are showy and desirable for any situation. Sow early in open ground.

**FINE MIXED**—Only flower we know which combines the national colors in each flower. About 2 feet high; is fairly loaded with long spikes of double striped and blotched flowers. Packet, 10c; oz., 50c.

**LANTANA**

The plants form small shrubs, producing in late summer and autumn heliotrope-like clusters of single, fragrant flowers that change colors. Succeeded by green berries that turn to a deep hue. Start under glass and transplant when danger of frost is over. May also be grown in pots. Tender perennial; about two feet high.

**FINEST FRENCH HYBRIDS MIXED**—Packet, 10c; ¼ oz., 25c.

**LOBELIA**

The four dwarf (Erinus) sorts are charming plants, well adapted for bedding, pots or rockeries. They make a neat edging for beds of white flowers and are very effective in masses, being covered with flowers a long time. The flowers are usually blue with lighter center and are borne in neat clusters, each irregularly

lobed flower being about five-eighths inch across.

Seed may be sown outdoors after danger of frost is over; or start the plants in pots in greenhouse or hot-bed, early in spring and transplant in May to place outdoors. Half hardy annual; usually about six inches high.

**CRYSTAL PALACE COMPACTA**—Rich deep blue; dark foliage; the finest dark blue for bedding. Pkt., 10c.

**LOVE-IN-A-MIST**

(Nigella)

Also known as Lady-in-the-Green and as Devil-in-a-Bush, because the blossoms are partly concealed by the finely cut foliage. The large oddly shaped flowers are surrounded by a very dense fringe or wreath of mossy fibres. Both plant and flower are handsome and require but little care. Sow seed in spring in any good garden soil, or may be sown in fall. Hardy annual. **DAMASCENA**, fl. pl.—Double blue flowers; one and one-half to two feet high. Packet, 10c; ¼ oz., 25c.

**MARIGOLD**

A general favorite for planting in mixed beds and informal gardens, as they produce such great numbers of brilliant colored flowers that they are always a bright spot wherever planted.

**TALL AFRICAN MIXED**—Large double flowers. Pkt., 10c; ½ oz., 20c.

**LEMON QUEEN**—Pkt., 10c; ½ oz., 25c.

**ORANGE QUEEN**—Pkt., 10c; ½ oz., 25c.

**DWARF FRENCH**—Double, mixed colors. Pkt., 10c; ½ oz., 20c.

**MIGNONETTE**

**SWEET SCENTED**—The fragrance of the Mignonette makes it indispensable for bouquets and cutting. Sow seed early and they will commence blooming the first of June. Packet, 10c; 1 oz., 25c.

**NASTURTIUM**

Few plants are more easily grown or remain longer in bloom than the Nasturtium, with its large shield-shaped leaves and beautifully irregular flowers, having long spurs and brilliantly colored petals. In favorable soil flowers are produced in abundance throughout the season. Seed is usually sown outdoors as soon as the weather is warm and settled, in the row where the plants are to remain. Well pulverized soil, preferably well drained and moderately rich, should be used and the seed covered with about one inch of fine soil, firmly pressed down. A sunny situation is essential for free blooming. If the soil is very rich the plants give a large amount of foliage but few flowers. Nasturtiums are seldom, if ever, bothered with insects.

**TALL VARIETIES**

One of the most popular of all annuals, as every one can grow it. Grows anywhere, except in the shade. No ground is too poor to grow it. It is fine for cutting. The tall or trailing variety is a useful plant for trailing over walls or stumps, also for porch boxes or hanging baskets. The dwarf varieties form compact bushes. Both flower all summer.

**COQUETTE**—A fancy strain of large flowered Nasturtiums, quite distinct from the ordinary varieties. Packet, 10c; oz., 15c.

**MOONLIGHT**—Light straw-yellow; very large and fine flowering. Packet, 10c; oz., 15c.

**MIXED**—Good mixture of the ordinary varieties. Packet, 10c; oz., 15c.

**DWARF VARIETIES**

**EMPRESS OF INDIA**—Has very dark reddish green foliage, with deep crimson flowers. Packet, 10c; oz., 15c.

**ROSE**—A pretty shade of salmon rose. Packet, 10c; oz., 15c.

**GOLDEN KING**—Fine orange-yellow flowers. Packet, 10c; oz., 15c.

**GOLDEN QUEEN**—The foliage of this variety is a very light yellowish-green and the flowers a clear golden-yellow. Packet, 10c; oz., 15c.

**CLOTH OF GOLD**—Has golden-yellow leaves and bright scarlet flowers. Packet, 10c; oz., 15c.

**VESUVIUS**—A fine large flowered variety with beautiful blooms of a salmon-pink shade. Packet, 10c; oz., 15c.

**CHAMELEON**—An odd and very interesting strain, producing flowers of several colors and varied markings on one plant. Packet, 10c; oz., 15c.

**PEARL**—A very pale yellow. Packet, 10c; oz., 15c.

**FINE MIXED**—A good strain of many colors. Packet, 10c; oz., 15c.

## FLOWER SEED—Cont.

## PANSIES

Seed may be sown indoors very early in spring, or a little later in the open ground, and transplanted when an inch high. Such plants will commence to bloom in June. If sown in July, the plants will bloom in the fall, or if sown in September, the following spring.

Adams' Exquisite  
Orchid-Flowered

**ALL SHADES MIXED**—All the delicate shades and tint of the Orchids may be found in these charmingly pretty favorites. Rose, orange, pink, lilac, terra cotta, chamois and other exquisite shades are predominant and please all lovers of the delicate by their refined form and texture. Orchid-flowered Pansies are not as large as some of our Giant strains; but they will appeal by their exquisite coloring and the elegant shape of their flowers. Pkt., 25c;  $\frac{1}{8}$  oz., \$1.00.  
**ADAMS' MIXTURE**—Is a mixture consisting of a grand assortment from the world's leading specialists. If you like pansies you must have the Adams' Mixture. Packet, 15c;  $\frac{1}{8}$  oz., 75c.

**CASSIER'S GIANT MIXED**—Flowers of immense size, and are of the popular Odier type, being all three-spotted or five-spotted on backgrounds of very rich colors. The flowers are of good substance and fine form, of most compact growth. Packet, 15c;  $\frac{1}{8}$  oz., 75c.

## PINKS

Splendid large flowers of the most brilliant colors and markings; constantly in bloom from July till after severe frosts; the first and also the second year. No flower excels this genus for a brilliant show of colors through the summer. Height, 1 foot.  
**DIANTHUS CHINENSIS**—Double China—Mixed. Packet, 10c,  $\frac{1}{4}$  oz., 25c.  
**DIANTHUS HEDDEWIGI**—Single—Mixed. Packet, 10c;  $\frac{1}{4}$  oz., 25c.

## PHLOX

No flower excels this in all the qualities that make a popular annual. Brilliant and varied colors; continuous and profuse bloomer, being one of the last to succumb to the frosts of late October; it is excellent for bouquets; all combine to place it in the list of the best half dozen flowers for garden decorations. Height, 18 inches.

**PHLOX DRUMMONDII**—Mixed—Packet, 10c;  $\frac{1}{4}$  oz., 25c.

**STAR-SHAPED**—Long, pointed petals, which give the flowers a star-like appearance; plants grow compact and dwarf. Mixed, Packet, 10c;  $\frac{1}{4}$  oz., 40c.

## PORTULACA

**(SUN PLANT)**—One of the very best hardy annuals. Portulaca is very easy to cultivate; thrives best in a sunny location. The flowers are of the richest colors and bloom profusely the entire summer. Are used for massing in beds, borders, rock work or for sowing broadcast over sunny embankments. Single Mixed, in all colors, Packet, 10c;  $\frac{1}{4}$  oz., 20c. Double Mixed, Packet, 10c;  $\frac{1}{4}$  oz., 75c.

## POPPY

**POPPY (Papaver)**—These well-known hardy annuals and perennials flower in great profusion throughout the summer. Both the single and double varieties are very desirable for bedding and borders. The flowers are remarkable for their large size, delicacy of tissue and wide range of bright dazzling colors. As early in spring as ground can be worked sow the seed, which is quite small, where the flowers are to bloom, as the annual varieties do not bear transplanting. Pulverized soil, preferably light sandy loam,



A BLOSSOM FROM OUR ORCHID FLOWERED  
PANSY MIXTURE

should be used. Make rows fifteen inches apart and cover seed one-fourth inch deep. When two inches high, thin from six inches to one foot. To insure continuous bloom during a long season the flowers should be cut regularly and no seed pods allowed to form.

**ORIENTALE (The Large Oriental Poppy)**—A charming summer flowering hardy plant, producing numerous leafy stems about 2½ feet high, with large, deep crimson flowers, having a conspicuous black blotch on each petal; exceedingly showy. Packet, 10c;  $\frac{1}{4}$  oz., 30c.

## ANNUAL VARIETIES

**SHIRLEY**—A magnificent variety, producing through a long season large single flowers of charmingly delicate colors, ranging from pure white through shades of pink and rose to brightest scarlet and carmine-red. If cut before the blooms are fully expanded, they will keep fresh in water for several days. Hardy annual, about twenty inches high. Packet, 10c; oz., 50c.

**TULIP FLOWERED**—Single bright scarlet tulip-shaped flowers, a black spot appearing at the base of each petal. Hardy annual, about one foot high. Packet, 10c;  $\frac{1}{4}$  oz., 25c.

**DOUBLE CARNATION MIXED**—Large showy double fringed flowers of various colors; hardy annual, about two feet high. Packet, 10c;  $\frac{1}{4}$  oz., 25c.

**DOUBLE CHOICE MIXED**—Very large, double poppies in a variety of colors. About two feet high. Packet, 10c;  $\frac{1}{4}$  oz., 20c.

## PETUNIA

No garden is complete without a bed of elegant petunias. They commence flowering early and continue a mass of bloom throughout the whole season, until killed by frost; are easily cultivated, requiring rich soil and a sunny situation. Of late the single striped, mottled and double varieties have been greatly improved, and the description gives but a faint idea of their great variety and beauty. Double varieties require care and should be started in the house.

**HOWARD'S STAR-SHAPED**—Entirely Distinct—The five-petaled blooms having star-shaped markings of blush-pink or white over maroon ground; very fine. Packet, 15c;  $\frac{1}{8}$  oz., 50c.

**FINE MIXED**—Best of older varieties. Extra fine striped and blotched sorts. Packet, 10c;  $\frac{1}{4}$  oz., 25c.

## FLOWER SEED—Cont.

### HOW TO GROW SWEET PEAS

First of all, plant early, just as soon as the ground can be dug and is not sticky. Dig deeply. If you are growing sweet peas every year, try and prepare your ground in the fall, and dig 18 inches deep, mixing manure thoroughly in the subsoil. The surface soil in which the seed is sown should not contain manure. If you start in the fall you will find you can sow earlier in the spring. If you can't secure manure, use bone meal or commercial fertilizers containing phosphate and potash. Cover the ground an eighth of an inch with these and then dig in and mix thoroughly with the soil. Sow the seed three inches deep if on sandy soil, or two if in clay.

The roots should not be allowed to become too dry. Water applied thoroughly once or twice a week, preferably early in the morning or in the evening, is usually better than light sprinkling more frequently.

For the aphid or plant louse, spraying with solutions of some tobacco extract is usually effective; and for the Red Spider, which also causes trouble at times, spraying with pure water is usually sufficient. A frequent change of location has also been found important. A better growth of the vines and earlier blooming often result from planting seed late in the fall instead of early in the spring.

The blooms should be picked before they form pods or the plants will soon stop flowering.

### SPENCER SWEET PEAS

This group includes the largest and most beautifully formed sweet peas. The Spencers have very large waved flowers which are produced abundantly on long strong stems, making the blossoms most desirable for cutting.

The plants of Spencer varieties when grown outdoors are usually in bloom much longer than other sweet peas, as most of the blossoms fall off after maturity without setting pods. A characteristic of the best Spencers is an "open keel." The petal or envelope enclosing the pistil, stamens and anthers is called the keel. In a typical Spencer flower grown under favorable conditions the anthers and stigma are not clamped together and the envelope of the keel is large and baggy and open at the top.

**APPLE BLOSSOM**—Bright rose standard with wings of very light primrose flushed or tinted rose-carmine. Very large Spencer form. A free blooming sort and a reliable bi-colored sweet pea of robust growth. Packet, 10c; oz., 25c; ¼ lb., 90c.

**ASTA OHN**—Suffused lavender or tinted mauve sometimes with pinkish tinge. Spencer form, large and wavy. Among the very best of the deeper lavender Spencers. Packet, 10c; oz., 25c; ¼ lb., 90c.

**COUNTESS**—Bright clear pink, sometimes darker towards the edges; very large, open form; long stems. The first variety introduced of the Spencer type and still considered the best deep pink sweet pea. Packet, 10c; oz., 25c; ¼ lb., 90c.

**KING EDWARD**—Brilliant crimson-scarlet; very large size and of open form. One of the very best of the pure red or crimson Spencers. Packet, 10c; oz., 30c; ¼ lb., \$1.00.

**KING WHITE**—The form, size, vigor, waviness and purity of color, give pre-eminence to its claim as the best Spencer yet introduced. Seed white. Packet, 10c; oz., 35c; ¼ lb., \$1.25.

**OTHELLO**—A beautiful, deep, pure maroon of very large Spencer type. One of the most reliable of the maroon shades of Spencers. Packet, 10c; oz., 30c; ¼ lb., \$1.00.

**WHITE**—Standard and wings of pure white, beautifully waved and fluted. An especially attractive variety of very large size. Seed white. One of the very best white sweet peas. Packet, 10c; oz., 30c; ¼ lb., \$1.00.

**AURORA**—Flowers brilliant orange-rose, striped and flaked on white. One of the most attractive very large striped Spencers. Packet, 10c; oz., 25c; ¼ lb., 90c.

**BLANCHE FERRY**—This is similar in color to the old Blanche Ferry but like all Spencers the type is not unalterably fixed. Rose-pink standard; wings white; suffused and tinted with light pink. It is a very pleasing bi-colored sweet pea. Packet, 10c; oz., 35c; ¼ lb., \$1.25.



**CAPTAIN OF THE BLUES**—Purple, with blue wings, beautifully waved; margin of petals marbled. Flowers of large form. Packet, 10c; oz., 25c; ¼ lb., 90c.

### GRANDIFLORA OR ORDINARY VARIETIES

All Varieties: Packet, 10c; oz., 15c; ¼ lb., 35c.

**AMERICA**—Clear scarlet on a white ground.

**AURORA**—Extra large flowers, are flaked and striped bright salmon on white ground.

**BLACK KNIGHT**—Rich glossy blackish maroon. Immense bold, attractive flowers borne in greatest profusion.

**DOROTHY ECKFORD**—The largest flowered white variety. Great bloomer.

**EARLIEST OF ALL**—Very early; a bright pink with white wings.

**EXTRA EARLY BLANCHE FERRY**—Earliest of all. A beautiful light rose and white.

**KING EDWARD VII**—A true giant-flowered variety; brighter than either Mars or Salopian, in fact, the best dark red in existence.

**LADY GRISEL HAMILTON**—Light lavender with azure blue wings.

**MRS. WALTER WRIGHT**—Of pinkish cream, changing to reddish purple; large.

**MRS. DUGDALE**—Standard rose, the wings primrose shaded and splashed rose.

## FLOWER SEED—Cont.

## SWEET PEAS—Continued

**LOVELY**—The most beautiful shades of soft shell-pink, shading to faint rose at outer edges.

**MONT BLANC**—Large white flowers, free blooming and the earliest of all whites.

**MAID OF HONOR**—Light blue on a white ground, edged with deep violet.

**MRS. KENYON**—A decided novelty in Sweet Peas, being a very pretty large-flowered sort, of a handsome primrose or yellow color. You should have it if you want an attractive new color in your mixture.

**NAVY BLUE**—A great novelty; the darkest and truest blue of any variety. Free bloomer.

**OTHELLO**—A beautiful dark brown chocolate red self-colored.

**PRINCE OF WALES**—A bright, self-colored, deep rose flower of grand size and beautiful hooded form; frequently four on a stem.

**PRIMA DONNA**—A soft shade bright rose-pink, with deeper coloring in center of standard and inner portion of wings.

**GRANDIFLORA MIXED**—This is a mixture from the growers and is made from surplus stocks of varieties and seeds as are grown in trial plots together with the seeds from fields of mixed colors. Contains a wide range both of new and old varieties.

## SWEET WILLIAM

Sow outdoors very early in spring, preferably in rich, mellow soil, in rows one foot apart. Cover seed one-fourth inch with fine soil firmly pressed down. When two inches high, thin to six inches apart. In the more northern latitudes, protect with mulching in winter. Seed can also be sown in fall. There are usually no flowers until the second season, but if seed is started very early under glass and transplanted, blooms may be had late in autumn. The old clumps may be divided, but it is usually more satisfactory to start vigorous young plants every year or two. Hardy perennial; one and one-half feet high.

**SINGLE FINE, MIXED**—This mixture will be found especially satisfactory. Packet, 10c;  $\frac{1}{4}$  oz., 15c.

**DOUBLE MIXED**—Double flowers in a great variety of colors and shades. Packet, 10c;  $\frac{1}{4}$  oz., 20c.



SWEET WILLIAM

## SALVIA SPLENDENS

(Scarlet Sage)

The Scarlet Sage has long been a favorite bedding plant, also grown for conservatory decoration, bearing long spikes of flowers in great profusion from July to frost; seed should be sown as early as possible, either indoors or in a hotbed, and the young plants transferred to their flowering quarters when the weather has become settled and warm. May also be sown in the open ground in May.

**SPLENDENS (Scarlet Sage)**—Beautiful bright scarlet; 3 feet. Packet, 10c;  $\frac{1}{4}$  oz., 60c.

**"BONFIRE"**—This is one of the finest of the Scarlet Sages, growing in a compact bush 2 feet high by 2 feet in diameter. Its erect spikes of brilliant scarlet flowers stand clear above the dark green foliage and completely cover the plant. It attracts immediate attention in the garden, and is one of the most effective and gorgeous plants in cultivation. Packet, 10c;  $\frac{1}{8}$  oz., 50c.

**BALL OF FIRE**—A compact type and popular for beds and borders requiring a variety of dwarf habit than the regular Scarlet Sage or the variety "Bonfire." Packet, 15c;  $\frac{1}{8}$  oz., 60c.

**ZURICH**—A splendid dwarf variety, growing about 2 feet high, and is especially valuable on account of being the earliest to bloom, flowering ten days in advance of any other sort. Packet, 20c;  $\frac{1}{8}$  oz., 75c.

## STOCKS

These well known favorites require no description; they are indispensable to all lovers of flowers. The "Stocks" of today are greatly superior to the old types of flowers, being much larger and extra double. Will bloom in open ground in ten weeks. Double fine mixed. Packet, 10c;  $\frac{1}{8}$  oz., 50c.

## SWEET VIOLETS

Sow the seed in May, and when in flower in August or September, transplant into well-enriched beds, assorting as to color or arranging in any design desired. The following spring they begin to bloom, and throughout spring and early summer will give a profusion of flowers. Finest Mixed Packet, 15c.

## VERBENAS

Verbenas usually flower well in August from seed sown in open ground in May. Germination will be hastened if the seed is soaked in lukewarm water before planting. It is desirable to have the soil well fertilized and carefully pulverized. Cover seed about one-fourth inch deep. When the young plants have three or four leaves transplant in rows two feet apart and about twenty-four inches apart in the row, choosing preferably a sunny situation. At this distance the plants, if conditions are favorable, will spread so as to cover the ground completely.

**MAMMOTH MIXED**—A distinct sort. The plant forms a compact bunch about five inches high and eighteen inches across, covered throughout the season with large trusses of white, scarlet and violet flowers. Packet, 10c;  $\frac{1}{4}$  oz., 50c.

## VINCA

**PERIWINKLE**—These very attractive bushy plants with glossy green foliage produce in abundance handsome round or salver shaped single flowers, suitable either for culture in pots or boxes or for summer bedding and borders. If sown early under glass and transplanted in a warm, sheltered situation will bloom in summer and autumn and may be potted for the house before frost. The plants require no trimming, are in continuous bloom from setting out until frost and are entirely free from the attacks of insects. These desirable features account for the increasing demand for Vincas in parks and private grounds for summer-bedding and borders. Tender perennial, blooming the first season, about fifteen inches high.

**PURE WHITE**—Beautiful pure white. Packet, 10c; oz., \$1.25.

**ROSEA ALBA**—White with crimson eye. Packet, 10c; oz., \$1.25.

**ROSEA**—Rose with crimson eye; flowers often two inches in diameter. A very desirable window plant. Packet, 10c; oz., \$1.25.

**CASTOR BEANS**—New Zanzibar—A new and distinct class, which surpass in size and beauty all the varieties heretofore known. The plant grows from 10 to 15 feet high, and the leaves measure about 30 inches across. Packet, 10c.

## JOB'S TEARS

**COIX LACHRYMAE**—Curious ornamental grass from East India, with broad, corn-like leaves and seeds of a light slate color, wonderfully lustrous. Valuable for the formation of winter bouquets in connection with everlasting flowers, and strings of handsome beads are formed from the seeds. Height three feet. Hardy annual. Packet, 10c.

## FLOWER SEED—Cont.

### ZINNIAS

Can be raised to flower by August, if sown in the open ground; but if sown under glass in April they will bloom in June and throughout the entire season.

**GIANT ZINNIAS**—For description see page 4.  
**SPECIAL MIXTURE ELEGANS, DOUBLE MIXED**—This selection contains the whole range of colors known to Zinnias. Packet, 10c; ½ oz., 35c; 1 oz., 60c.

**ELEGANS DWARF MIXED**—The plants grow two to three feet tall and a very large number of colors are produced. The flowers are quite double and two to three inches in diameter. Packet, 10c; ½ oz., 35c; 1 oz., 60c.

**SPECIAL CURLED AND CRESTED ZINNIA**—These flowers are produced in all colors and the long, narrow petals are curled. This special mixture contains a large per cent of soft, light colors and for a border they can hardly be surpassed. Packet, 10c; ¼ oz., 20c; 1 oz., 65c.

**SPECIAL POMPONE ZINNIA**—This mixture of all Zinnia colors grows about two and one-half feet tall. The flowers are only about an inch in diameter. They are very pretty and many think them the finest type of Zinnias. Packet, 10c; ¼ oz., 20c; 1 oz., 65c.

**RED RIDING HOOD**—1 foot. Of compact form and covered the entire season with little button-like, intense scarlet flowers not over an inch across; as a border plant it is highly effective. Packet, 10c; oz., \$1.50.

### SEEDS OF ANNUAL CLIMBERS

**BALLOON VINE, OR LOVE-IN-A-PUFF**—Climbing annual, with small inferior flowers. The seed pods are curiously swelled or puffed, and are quite attractive. Packet, 10c.

**BEAN (Scarlet Runner)**—A popular climber; the seed is edible and much esteemed. Flowers scarlet; beans black and lake splashed. Packet, 10c.

**COBEA SCANDENS (Cup and Saucer Vines)**—A climber of rapid growth; very valuable for covering trellises, arbor, trunks of trees, etc. Will cling to any rough surface, often attaining a height of 30 to 40 feet in one season.

**SCANDENS PURPURA**—Large, bell-shaped purple flowers. Packet, 10c.

**SCANDENS ALBA**—Pure white. Packet, 10c.

**CYPRESS VINE (Ipomoea Quamoclit)**—A tender climbing annual with soft fern-like foliage and small star-like flowers. Choice mixed colors. Packet, 10c; oz., 25c.

**HUMULUS, OR JAPANESE HOP**—A rapid growing, hardy climbing annual with dense leaves. Will grow 20 to 30 feet in a season. Packet, 10c; oz., 35c.

### NEW CARDINAL CLIMBER

A new annual climber of the Ipomoea or Morning Glory family.

It is a wonderfully vigorous grower, climbing 20 feet in a season from seed sown in the Spring. The foliage is beautifully cut and is very graceful. The flowers are very brilliant, being a fiery scarlet, the individual blooms being about 1½ inches across and produced in clusters of 5 to 7. It flowers very profusely the entire Summer, and bids fair to take a place as one of our best annual climbers, having attracted much attention wherever grown. It should be planted in a warm, sunny location in good soil and will then give a good account of itself. Packet, 15c; oz., \$2.00.

### MORNING GLORY

**CONVOLVULUS MAJOR**—Free flowering, beautiful climbers with rich and varied colored flowers, very useful for covering lattice work, verandas, etc., where they are exceedingly effective.

**IMPERIAL JAPANESE**—Packet, 10c; oz., 25c.

**MAJOR TALL MIXED**—Packet, 10c; oz., 25c.

**MINOR DWARF MIXED**—A beautiful hardy bedding and border plant, attaining a height of about 1 ft. Packet, 10c; oz., 25c.

### MOON FLOWER

These beautiful climbers grow rapidly, and will reach a height of twenty to thirty feet in a single season. The foliage is large, dense, and luxuriant, affording splendid shade for porches. Plant seed an inch deep in rich soil early in spring when trees are well in leaf. For Northern States, seed should be started indoors early in March, and setting vines outdoors when trees are out in leaf.

**WHITE-SEEDED**—The vines bear thousands of immense white flowers, many measuring six inches across. Packet, 10c; ½ oz., 36c; oz., 50c.



CARNATION.

### GOURDS

**NEST EGG**—Grows exact size, color and shape of an egg and makes a very good nest egg. Packet, 10c; oz., 25c.

**THE DIPPER**—When grown on the ground the stem will be curved, while if raised as a climbing vine, weight of the blossom end will cause stem to grow straight. Dippers of a capacity from a pint to a quart can be had from a few vines. Packet, 10c; oz., 25c.

**SUGAR TROUGH (Selected Stock)**—Grows to a very large size; holds from four to ten gallons each, having hard, thick shells, which are very strong, but light and durable, lasting for many years. Packet, 10c; oz., 25c.

**DISH CLOTH, OR LUFA**—The peculiar lining of this fruit, which is sponge-like, tough and durable, makes a natural dish cloth. The fruit grows about two feet in length and the vine is very ornamental. Packet, 10c; oz., 25c.

### SEEDS OF BIENNIALS AND PERENNIALS

**AQUILEGIA**—(Columbine)—A hardy perennial, growing about two feet high and bearing an immense variety of blossoms on long, smooth stems. Packet, 10c; oz., \$1.00.

**BELLIS PERENNIS (Double Daisy)**—A hardy perennial, blossoming freely all spring and summer. Plant is about four inches high and is valuable for borders. Is much sown in lawns. Extra double white or Snowball. A clear white variety. Packet, 10c; ½ oz., 75c.

**CANTERBURY BELLS (Campanula Medium)**—A hardy perennial, blooming the second year from seed, or the first, if sown early. Grows about three feet high. Packet, 10c; oz., \$1.00.

**CARNATION**—Our strain of these popular flowers is unsurpassed in beauty and variety of coloring, also in their delightful fragrance. For largest, richest flowers, we recommend their culture in pots or rich soil or small, shallow boxes. Cover the seed lightly, and shade from the strong rays of the sun. When the young plants are two or three inches high, they may be transplanted out into small beds. Shade and water them until established. Then they can be planted out in well-prepared beds, 12 to 18 inches apart. While the weather is cool, the ground should be mulched about 2 inches deep with well-rotted manure. This will not only help to retain the moisture in the ground, but also supply nutriment to the plants. The seed may be sown any time between March and September.

**MARGUERITE, MIXED COLORS**—Very varied; gives a large percentage of fine double flowers. Packet, 10c; ½ oz., 50c.

**COREOPSIS—GRANDIFLORA**—This is useful for cutting, producing large, golden-yellow flowers profusely during summer. Height, two feet. Packet, 10c; oz., 75c.

## FLOWER SEED—Cont

**SHASTA DAISY** (Maximum *Chrysanthemum*—This creation of Luther Burbank is sometimes called the "Giant White California Daisy." Large flowers are produced freely after the first season. Packet, 15c;  $\frac{1}{4}$  oz., 75c.

**DELPHINUM** (Perennial Larkspur)—**Formosum**—Brilliant blue, white eye. Packet, 10c;  $\frac{1}{4}$  oz., 75c.  
**CHOICE MIXED**—Best varieties. Packet, 10c;  $\frac{1}{4}$  oz., 50c.

**GYSSOPHILA—PANICULATA** (Baby's Breath)—This is one of the most useful and graceful of hardy perennial plants, the tiny white flowers being borne in myriads on such slender stems that they appear as clouds floating in the air. Height, two feet. Packet, 10c;  $\frac{1}{4}$  oz., 20c.

**GAILLARDIA—GRANDIFLORA** (New Perennial Hybrids)—(Blanket Flower)—Splendid hardy perennial, invaluable for cutting, and flowering continuously all summer. Colors yellow and crimson. Height, one and one-half to two feet. If sown early in spring, will bloom the first year. Packet, 10c; oz., 30c.

**SCABIOSA—CAUCASICA** (Pincushion Flower)—A magnificent perennial with beautiful large light-blue flowers, blooming continuously throughout the summer, the flowers being produced on long, stiff stems, making it invaluable as a cut-flower. Height, two feet. Packet, 10c;  $\frac{1}{4}$  oz., 25c.

**SWEET WILLIAM** (*Dianthus Barbatus*)—A hardy perennial blooming the second year from seed. Grows one to two feet high and bears its flowers in clusters, at the end of a stiff stem. The individual flowers are handsomely colored and marked. It makes a beautiful bedding plant, and is of easy culture.

**SINGLE VARIETIES, MIXED**—More attractive than the double. Packet, 10c;  $\frac{1}{4}$  oz., 15c.

**STOCKS** (Ten Weeks' Stocks, or Gilliflowers; *Levoje*)—The Stock is one of the many popular plants used for bedding. For brilliancy and diversity of color, fragrance, profusion and duration of bloom it is unsurpassed. Hardy annual. Packet, 10c;  $\frac{1}{4}$  oz., 50c.

**VIOLETS**—Hardy perennials, blooming freely throughout the summer and autumn. Of easy culture. Packet, 10c.

## SELECT DAHLIAS

**CULTURAL NOTES**—Dahlias should be grown in a well-drained position where they will receive the benefit of the sun the greater part of the day. Dahlias will grow in almost any kind of soil with the exception of stiff clay, in which case it is advisable to work in ashes or sand to make it friable. To get the best results the soil should be dug about 18 inches deep and a liberal quantity of well-rotted stable manure worked in or sheep manure and bone meal can be used to advantage. The soil should be cultivated regularly during the growing season and the plants well supplied with water. A covering of loose material applied to the roots during the excessive dry and hot weather will be beneficial to the plants. After the plants are killed by first frost the roots should be dug and stored in a cool cellar away from furnace heat.

The Following Varieties 30c Each, \$2.75 Dozen,  
Not Prepaid.

**WILDFIRE CENTURY**—Century size, with the brilliant rich scarlet of the old Wildfire. Acknowledged the best commercial scarlet.

**JACK ROSE**—The best crimson for garden or cutting; that brilliant crimson red that made the "Jack" Rose popular and suggested the name.

**LAWINE**—Cactus. Large white, suffused pink. Strong vigorous grower and profuse bloomer on long stems.

**MARJORIE CASTLETON**—Best standard pink. Cactus for garden or cutting. Color soft rosy pink, tinting lighter toward center.

**MELODY**—Decorative. Pure canary yellow, tinting to creamy white at the tips. Very profuse bloomer on long stiff stems.

**MINNIE McCULLOUGH**—Decorative. The best "Autumn shade" variety; golden yellow, tipped red. Fine form and profuse bloomer.

**MRS. JOS. LUCAS**—Century. A wonderful "Autumn shade" Giant Single. Immense size, beautiful form, produced profusely on good stiff stems. Color, yellow suffused orange, overlaid salmon pink.

**QUEEN OF HEARTS**—Cactus. Pure white, with yellow at base of petals, a most effective cut flower, especially for weddings and other decorations.

**SYLVIA**—Decorative. Deep pink, tinting lighter toward center. A splendid cut flower, on long stems and a profuse bloomer.

**WHITE SWAN**—Show. Pure white. Strong, vigorous bloomer, on long stiff stems.  
The 10 varieties described on this page are all of special merit. Florists can recommend them to their customers with complete confidence that they will give the greatest satisfaction

## GLADIOLUS

This is a flower which has as great variation in color as the Pansy; is fine for garden decoration and no flower is as satisfactory for cutting, for, if cut when first flower opens and kept in fresh water, every bud will open and this extends over a week or so. Plant the bulbs 4 to 6 inches deep and 6 inches apart about May 1st in this locality. They will not flower in the shade, but are not particular as to soil, of course, the richer the better; but do not use fresh manure in the ground. Add 10c per dozen if wanted by mail at prices named below. If by express, at purchaser's expense. All strictly selected first size bulbs.

**CHICAGO WHITE**—The past five years have proven the great value of this early medium size white for cut flower work. It is now in the lead with the local grower who produces a market for his own flowers, designs and funeral work. It is the best white and the price is low. Each, 15c; dozen, \$1.00.

**MRS. FRANK PENDLETON**—For choice novelties, somewhat higher in price than Kings and America, this variety stands right in front. Every florist should have it. The light color slightly flushed with pink is brought into strong contrast with the maroon blotch on the three lower petals. Each, 15c; dozen, \$1.00.

**MRS. FRANCIS KING**—Still holds the lead among florists for effective display work. Cut when first bud opens the spike develops fully from the reserved buds and make an effective window display, or are available for cut flower work for four to six days. In planting to get best results fertilize well and plant eight inches apart in a row to give the growing plants development. Each, 7c; dozen, 75c.

**AMERICA**—Soft lavender pink, very light, almost a tinted white. When cut lasts in winter a week or more, the blossoms retaining their vigor and delicate coloring to the last. Each, 7c; dozen, 75c.

**SCHWABEN**—A most meritorious imported variety of wonderful vigor, with strong erect spikes and large well-expanded flowers of a clear canary yellow with a small blotch of deep garnet in the throat. This may now be considered the best and freest growing yellow variety. Each, 15c; dozen, \$1.25.

**PANAMA**—A favorite wherever high-grade varieties are grown. It is similar to and has all the good qualities of America, but in color is a rich rose-pink. One of the finest. Each, 10c; dozen, \$1.00.

**PERFECTION MIXTURE**—This splendid mixture is a blending of high-grade named varieties and embraces a great and pleasing range of colors. We heartily recommend it. Each, 7c; dozen, 75c.

## FLOWER SEED Cont.

## CALADIUM ESCULENTUM

## (Elephant's Ear)

An effective plant of tropical appearance. The plants make a good show when set out separately or in masses. A very beautiful round bed can be made by putting three Caladiums in the center, then a circle of Dwarf Cannas and then a border of some easily grown annuals like Nasturtiums.

Caladiums do best in a rich, loose soil, and if given an abundance of water will grow to an enormous size. The leaves often measure three feet long and 20 inches wide. Bulbs may be taken up in the fall and stored in sand through the winter.

Extra Large Bulbs, 40c each; 12 for \$4.00.

Medium Bulbs, 25c each; 12 for \$2.50.

## TUBEROSES

One of the most charming and fragrant of our summer-flowering bulbs, throwing up large spikes of pure white double flowers which are very useful for decorative work. Plant in the open ground during May. By starting in pots during March, a succession of bloom can be had all summer. Excelsior pearl bulbs. Per dozen, 40c.

## CANNAS

Cannas can be used in a great many different ways: As a center of a flower bed, as a back-ground for a flower bed, in front of the house or fence, as a screen to hide poultry yards, alleys, etc.

The culture of Cannas is very simple. All you do is to plant the bulbs about four inches deep in good soil and then see that they get plenty of water throughout the summer. The bulbs should not be planted outdoors until the soil is thoroughly warm as they will rot in cold soil.

Be sure you order at least a few of these new Cannas. We know you will be delighted with them.

**KING HUMBERT**—Height, 3½ feet, bronze foliage, flowers of large size, and glowing scarlet or orange red often streaked with gold. One of the finest and most popular of cannas. Bulbs, each, 10c; per dozen, \$1.00.

**PENNSYLVANIA**—Height, 5 to 6 feet, green foliage, flowers a deep, vivid crimson, the darkest and bluest of this class. Flowers are of immense size, 6 to 7 inches across and with crinkly edges and silky sheen. Bulbs, each, 10c; per dozen, 75c.

**RICHARD WALLACE**—A good free-flowering yellow Canna of vigorous growth. In color it is a pleasing canary-yellow with exceptionally large flowers, which are carried well above the bright green foliage; 5 ft.; each, 10c; dozen, 75c.

**YELLOW KING HUMBERT** (Queen Helene)—Identical with King Humbert in habit of growth and flowering, and produces yellow flowers, dotted with red, and has green foliage. It has proven so satisfactory that there is a possibility that the demand for it may equal that of King Humbert. Some plants will occasionally give a scarlet or scarlet striped flower which we consider an improvement rather than defect. 5 feet. Each, 15c; dozen, \$1.00.

**METEOR**—Magnificent bedding variety with massive erect trusses of deep blood-red flowers, produced with a freedom that leaves nothing to be desired. The best deep red large-flowered Canna; 5 feet. Each, 10c; dozen, 75c.

**EUREKA**—The genuine, practical White Canna is found at last. With the advent of Eureka, we are granted good, full trusses; broad petals; uniform free and continuous bloom, and a clean, waxy, lily-white color. Plant growth sturdy with nice foliage. 4½ feet. Each, 15c; dozen, \$1.00.

Prices quoted on this page are not prepaid.

## PAEONIES

## BEAUTIFUL FLOWERS FOR DECORATION DAY

Paeonies are absolutely hardy and when once established will take care of themselves, making larger plants and producing greater numbers of flowers each year. There has been a wonderful development in these flowers and the new varieties are far superior to those of ten years ago. The flowers are much larger and the variety of color is much greater. Plant them as early in the spring as possible, from five to six inches deep and from two to three feet apart. Be sure to put some well rotted manure or other fertilizer in the bottom of each hole. Press the ground carefully around the roots, being careful not to break the crowns. Should the spring be very dry, water them a few times to promote a healthy growth of foliage which is necessary to insure perfect blooming.

## Five Favorites Paeony Collection

Remarkably Fine for a Permanent Bed

Free bloomers, flowers of largest size, and contrast in colors will afford the greatest opportunity for mixed bouquets of these wondrous blossoms. These are the most gorgeous flowers and this the greatest opportunity in all our hardy plant department.

**FESTIVA MAXIMA**—White, blotch of red in center.

**QUEEN VICTORIA**—Like above, somewhat smaller.

**FLORAL TREASURE**—Light rose pink; very fine.

**EDULIS SUPERBA**—Clear Pink.

**RUBRA**—Deep blood red.

Five Favorite Paeonies, \$2.50, Postpaid.

## OLD FASHIONED PERENNIALS

Paeonies, double, all colors, each.....	\$0.50
Hardy Sweet Violets, per doz.....	2.00
Rubeckia, or Golden Glow, per doz.....	2.00
Hardy Phlox, each.....	.25
Hardy Chrysanthemum Plants, each.....	.25
Hollyhocks, double, hardy, each.....	.25
Honeysuckle, each.....	.50
Boston Ivy, each.....	.60

## CLEMATIS

For house fronts or pillar vines, nothing can surpass the Clematis in grandeur and in beauty.

The roots are perfectly hardy, although the tops die down to the ground every fall. In planting, the ground should be dug very deep.

The roots we offer are all three years old. \$1.00 each.

**HENRYI**—A strong flower; flowers from 4 to 5 inches in diameter and pure white.

**PANICULATA**—This is a valuable Japanese introduction; one of the finest additions to our list of hardy climbers; a very strong, vigorous plant and as easily grown as the common.

## NURSERY STOCK AND SUPPLIES

### GRAPES

**CONCORD (Black)**—Too well known to need much description; is considered by many to be the best all around grape grown; is extremely hardy, vigorous and productive, bunches large, compact; berries large and juicy, buttery and sweet; will succeed well almost anywhere. Each, 30c; per dozen, \$2.50.

**BRIGHTON (Red)**—Bunch medium to large, quit compact, flesh rich, sweet, and best quality, color dark crimson or brownish red; vine vigorous and hardy. Each, 30c; per dozen, \$2.50.

**MOORE'S EARLY (Black)**—Bunch large, berry round with a heavy blue bloom, quality said to be better than Concord; hardy and prolific; a good market berry; ripens about two weeks before Concord. Each, 40c; per dozen, \$4.00.

**NIAGARA (White)**—One of the leading white sorts; bunch large, shouldered, compact; berry large, yellowish-white, juicy, vinous and sprightly, quality good; skin tough, making it a good shipper and market berry. Each, 30c; per dozen, \$2.50.

**WORDEN (Black)**—A seedling of the Concord; bunch large and compact, berry round, black with blue bloom, pulpy, juicy, and very pleasant; ripens several days earlier than Concord. Each, 30c; per dozen, \$2.50.

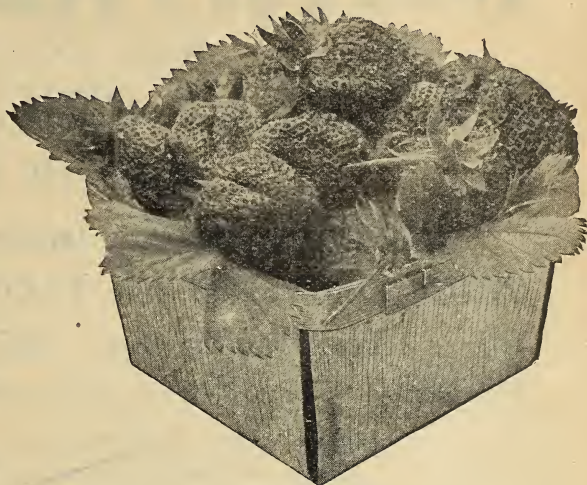


### FRUIT PACKAGES

#### BERRY BOXES, CRATES, BASKETS AND TREE PROTECTORS

Berry Boxes (500 in bdl.) pints, per 1,000.....	\$ 5.00
Berry Crates (10 in bdl.) pints, per 100.....	14.50
Climax, 6-lb., Basket, without covers, per 100....	5.00
Fruit Tills, 1 and 2 quarts, per 100.....	2.00
½-bu. Diamond Market Baskets, per doz.....	1.00
½-Bu. Oak Picking Baskets, per doz.....	5.50
½-bu. Wire Potato Baskets, \$1.00 each, per doz.	11.00
1-bu. Baskets, per doz.....	2.25
Berry Box Tacks, per lb.....	.75
Berry Crate Nails, per lb.....	.20
Tree Protectors, per 100, \$1.15; per 1,000.....	10.00

We carry a large stock of these goods. Prices subject to market changes.  
Prices quoted on this page are not prepaid.



### PROGRESSIVE EVERBEARING STRAWBERRIES

The Fall or Everbearing Strawberries have come to stay. Many people in different parts of the country are raising these berries and are picking them in the fall when they are truly a luxury.

These require no more care than do the spring sorts but for best results should be set in good soil. They will commence bearing in the spring, will bloom more or less all summer, and then set a heavy crop in the fall. If the blooms are pinched off in the spring and early summer the fall crop will be much heavier.

The young plants formed in the spring will bear fruit in the fall of the same year. Set out a good bed of these and you will have fresh strawberries when your neighbors are eating canned ones. 100 for \$2.00; 1,000 for \$17.00.

#### STANDARD STRAWBERRIES

If plants are set 1½ by 3 feet, it will require 9680 plants to an acre.

**SENATOR DUNLAP (Perfect)**—Early, wonderful producer, good size, of bright red color.

**HAVERLAND (Imperfect)**—Early, good variety for home use. Bright glossy crimson.

**WARFIELD'S (Imperfect)**—Early, solid, of good flavor, reliable market sort.

**BRANDYWINE (Perfect)**—Midsummer, large size, glory scarlet, juicy and luscious.

**AROMA (Perfect)**—Late, one of the best for home use or market gardeners; large and sweet, of fine, glossy color.

**GANDY (Perfect)**—Late, of large size, bright crimson color. This is one of the leading varieties.

Any of the above standard varieties, 100 for \$1.25; 1,000 for \$10.00.

Prices on Fruit Trees, Gooseberries, Currants, Blackberries and Raspberries on Application.

# 1922 NITRAGIN Policy

## SOIL INOCULATOR

## A GREAT PRICE REDUCTION

FOR THE FARMER

BUSHEL SIZES instead of ACRE SIZES

PRICE One bushel Size \$1.00 per can      \$1.10 postpaid  
Half bushel size    .55 per can      .60      “

This means NITRAGIN will now cost the farmer

20c    per acre if he sows 12 lbs. seed to the acre  
25c    per acre if he sows 15 lbs. seed to the acre  
33 $\frac{1}{3}$ c per acre if he sows 20 lbs. seed to the acre

### NEW GARDEN SIZE

Put up in small containers. Will inoculate up to eight pounds of seed.

Nitragin Garden Peas, all kinds, price .....15c

Nitragin Garden Beans, including Lima Beans .....15c

Nitragin Garden Sweet Peas. All flowering Peas.....15c

State what crop you want it for.

In ordering be sure and name crop you are going to inoculate.

NITRAGIN will be still sold in the FINE GRANULAR MEDIUM and VENTILATED CAN.

NITRAGIN germs are guaranteed to retain their vitality through the year. (See date on can.)

NITRAGIN is now the cheapest culture the farmer can buy. Cheaper than experiment station cultures. Cheaper than any competitive culture. Cheaper than soil transfer. At the same time it will remain the best, the longest established, the safest, the easiest handled and the one most highly endorsed.

### PURPOSE OF



Many growers of legumes, particularly alfalfa, believe artificial soil inoculation is not necessary where legume crops have been successfully grown.

State Agricultural Departments report after many tests that it pays well to inoculate all legumes even where already successfully grown, because high bred culture bacteria greatly increase the nodules, adding many pounds of nitrate to the soil.

This gives the legume added strength. It is well fed. Is more resistant to winter killing, pests, etc., has a better root system. Insures a more even stand.

Many say "Oh, we can get a catch without inoculating." This is often true. The up-to-date farmer today, however, inoculates not only to get a catch, but he wants his legume crop to be well fed with nitrogen. He wants less winter killing. He wants more nodules, as every nodule is added plant food to be plowed under. He wants his crop in rotation to receive all of this added nitrogen so it too will grow and prosper.

A well inoculated field will add from 150 to 200 pounds of nitrogen plant food to the soil. Compare the price of "NITRAGIN" to the cost of 200 pounds of nitrogen fertilizer.

## TESTED RECLEANED FARM SEED

Prices Subject to Market Changes

Owing to the unsettled condition of the Grass Seed Market at the time of going to press we cannot make firm prices on Alfalfa, Clover, and Grass Seeds, but purchasers will receive as much as the money sent will pay for, but when a quantity is wanted it is well to ask prices and samples.

### ALFALFA

The farmer, the stock raiser and the dairyman should all be deeply interested in Alfalfa. The farmer should grow it because Alfalfa makes fine, fat cattle and hogs. The dairyman should grow it, for no other crop will maintain the milk flow better than Alfalfa.

### WHEN TO SOW

The best time to sow Alfalfa is in March or April, the end of August or during September. A firm, well-prepared seed bed is of first importance. Plow as early as possible, disc, harrow and reharrow at intervals of ten days or two weeks to make the seed bed firm and to kill the weeds. If your soil is shallow, break the subsoil with a subsoil plow so that the roots may penetrate as deeply as possible. Allow sufficient time for the land to settle, run the harrow over it, sow seeds thickly, and cover with a light harrow or brush. For sowing Alfalfa use either a Cahoon Broadcast Seeder or a Cyclone Seed Sower—both are good and do nice work.

On dry sandy soils cover an inch deep; on heavier soils cover  $\frac{3}{4}$  to 1 inch, but be sure the seeds are covered. If the ground is not wet, use the roller after sowing—it will firm the seed bed and hasten germination.

### RULES FOR SUCCESS WITH ALFALFA

**REMEMBER YOU ARE MAKING AN INVESTMENT** on which you expect profits for a number of years, and that the size of your profits will be in proportion to the care exercised in preparing your land before you sow the seeds.

**THE SOIL**—Sow only on deep, well drained, good loamy land that is not underlaid by a stiff hard pan that the roots cannot penetrate. When the roots reach this hard pan they either stop growing, or else grow horizontally along the top of the hard pan, but the

crop will not amount to much nor will it last very long. If possible sow on land from which a cultivated crop has just been taken; such land will be reasonably free of weeds. The land should contain an abundant supply of decomposed vegetable matter—a green crop turned under and lime liberally applied will give this condition.

**LIME ACID SOILS**—Alfalfa will not grow on acid soils. The bacteria that live on the roots of legume plants, like Alfalfa, drawing nitrogen from the air and making it available as plant food, cannot live in acid soil. Test your soil for acidity by taking a handful of soil from 2 or 3 inches below the surface, wet it with rain water, if not already moist, insert a piece of blue litmus paper (get it at any drug store). If, 15 minutes later, the litmus paper has changed to pink, your soil is acid. To correct acidity spread 1 to 2½ tons of finely ground lime to the acre after plowing and a few weeks before sowing; in the meantime keep the harrows busy to kill out the weeds.

**DRAINAGE**—Alfalfa will not live with its feet in water, so be sure the land is well drained. Good crops can be grown on lowlands if properly drained, either with tile or open ditches, to a depth of at least four feet.

**INOCULATE YOUR SEEDS**—Do not attempt to grow Alfalfa without inoculating except on fields where it has previously been grown. Per lb., 25c; 100 lbs., \$20.00. Seamless bags at 40c each.

### FACTS ABOUT ALFALFA

Once established, it lasts for years.

Yields 3 to 5 cuttings nutritious and palatable hay each season.

Feeding value high—contains as much protein as wheat bran.

Does not exhaust the soil! it enriches it.

Claimed to add twice as much nitrogen to the land as Red Clover.

Requires but little care and attention.

One of the farm's most profitable crops.

"Deep in the ground beyond the depths of the roots of ordinary crops, alfalfa seeks out and makes available untold wealth of soil fertility. As a host to bacterial life, it is the means of extracting from the atmosphere an inexhaustible supply of nitrogen to enrich the soil for its successors in crop rotation. From its bountiful harvests it has made possible the development of the great live stock industries of the country. In fact, the actual results from this truly wonderful plant are nothing less than a fairy tale come true."

## CLOVERS

In the United States the mark of the good farmer is his ability to grow Clover successfully and profitably—profitably not only in respect of what he actually gets from his clover seed and hay crops themselves, but for what the careful and judicious growing of Clover means to his farm and to himself in crop rotation, feeding, soil fertilization, etc. It is an indispensable part of a self-sustaining crop rotation, is probably the most important of all our hay plants, except Alfalfa in the west, forms an indispensable ingredient of balanced rations and after crops have been taken off can at little expense be turned under with immense manurial benefit to the land as it is one of the chief nitrogen gathering crops. This is the cheapest and surest way of enriching the ground.

Clover pasture is well adapted to hog-raising and cattle thrive on it, if sufficiently restricted to avoid bloating. It should be sown in conjunction with some other grass such as Timothy or Awnless Brome Grass. Clover is unexcelled as a soiling crop and is much used for silage. The seed crop yields a profitable return, the seed reproducing about 30 fold on the average, and can usually be taken from the second growth after the first has been cut for hay.

**MEDIUM RED CLOVER**—This is regarded as the most valuable of the Clover family. It is sometimes called June Clover and is a dependable all-round variety for farmers and stockmen. It makes two crops each year. The first is usually cut when it is in blossom for hay; the last crop may be harvested for seed, cut for hay, or plowed under to add fertility to the soil. Will grow in most any soil, makes excellent hay. Sow from 12 to 15 pounds per acre. Per lb., 30c; 100 lbs., \$25.00.

**MAMMOTH SAPLING OR PEA VINE CLOVER**—Being a rank grower makes it most valuable for fertilizing purposes. Foliage, flower and stem much darker than common Red Clover, ripens later than the latter, about the time Timothy and Red Top and other grasses ripen, making thereby a much better quality of hay, when mixed with them. Sow 12 to 15 pounds to the acre. Per lb., 30c; 100 lbs., \$26.00.

**ALSIKE CLOVER**—Alsike Clover is especially valuable for growing on wet or swampy land. If you have a piece of land that is too damp for alfalfa or other clovers or grass, sow a mixture of about four pounds of Alsike Clover and ten pounds of Red Top Grass Seed. This will make an excellent crop of hay. Alsike Clover is very hardy, is perpetual, will withstand drought and will not winter kill. About six to ten pounds will sow an acre and as the seed is very fine it should be covered only slightly. For bottom lands needing drainage but not subject to overflow an excellent mixture is as follows: Four pounds of Red Clover, two pounds of Alsike Clover and ten pounds of Timothy. This quantity is for one acre. Per lb., 30c; 100 lbs., \$25.00.

**WHITE CLOVER**—It makes an excellent pasture for cattle and sheep and is valuable for lawns. It will grow on almost any soil, but is best adapted for low, moist lands. Should be included for all mixtures for lawns or permanent pasture. It is also valuable to prevent soil from washing. Per lb., 60c; 100 lbs., \$55.00.

## SWEET CLOVER

### MAKES HAY AND PASTURE WHILE ENRICHING THE SOIL

Sweet Clover has been growing wild in the Middle West for a great many years. Up until a few years ago it was considered a weed, but now its good qualities are known and it occupies a very important place in agriculture.

The features or qualities which make Sweet Clover so valuable are: First, the ability to thrive, produce good hay and good pasture on very poor soils; and second, the ability to improve the soil on which it is growing. Nearly every farm has some land which is too poor to grow alfalfa, corn, wheat or other crops. Sweet Clover is just the thing for such patches. It will make these patches productive and will improve the soils so that after a few years they can grow other crops.

Sweet Clover will stand a great deal of drought and will also thrive in moist soils. Stock do not always take to it at first, but will eat it up readily after they once acquire a taste for it. Although Sweet Clover is very hardy and will thrive in the most unfavorable places it is sometimes difficult to get a good stand.

This difficulty can be overcome by sowing the seed on a thoroughly compacted seed bed with just enough loose dirt to cover the seed and by sowing scarified seed.

Scarifying is done on a machine which blows the seed against a strip of coarse sand paper. This scratches each seed just enough to allow the moisture to enter and cause the seed to germinate.

Sweet Clover has a very hard shell and when the seed is not scarified much of it will lay in the ground before it grows.

Our Sweet Clover is all scarified at no expense to you. Sweet Clover is sown either in the spring or in the fall at the rate of from 15 to 20 pounds of hulled seed to the acre.

Sweet Clover is a biennial, which means that it lives two years. It makes a rapid growth the first season and can be cut for hay or pastured during the latter part of the summer. The second season it makes hay and pasture and will also bloom and make seed. It dies at the end of the second season, but if it is allowed to do so it reseeds itself and comes up again the following spring.

Sweet Clover is grown very extensively throughout the Middle West. We are right in the heart of the Sweet Clover country and therefore can at all times supply the very best seed at the lowest market prices. We handle one variety of Sweet Clover, the Biennial White Blossom.

**WHITE BLOSSOM SWEET CLOVER** (*Melilotus alba*)—This is the popular and standard variety. It is a biennial, grows to a height of from 4 to 6 feet, is a very vigorous grower, is extremely hardy and produces abundant pasturage and lots of hay. This is the standard Sweet Clover of the country. Per lb., 20c; 100 lbs., \$12.00.

## CLOVERS ADD NITROGEN TO THE SOIL

But only when nodules containing bacteria are on the roots. These bacteria take the free nitrogen of the air and put it into such form as to make it available for plant use.

If these bacteria are not present, clovers can do but little toward enriching the soil. To make sure that your clover has plenty of bacteria inoculate the seed with Nitragin when sowing. (See page 38.)

## GRASS SEEDS

The Quality in Grass Seed is especially important because you seed a pasture, meadow or lawn for a period of many years. If vicious weed seeds are in the seed you sow they will be in your fields for a long time. Get the best seed even if it costs a little more.

We take special pride in our best seed and we know you would be pleased with it. If you are in any doubt as to the quality of our seed let us send you a sample. Then compare them with others.

**KENTUCKY BLUE GRASS**, the Great American Grass—Old standard grass for pasture and lawns. Every farmer knows its value. Succeeds in nearly all soils, but best in limestone districts. Well known everywhere. Sow about 25 to 30 pounds to the acre for meadow, and from 65 to 80 pounds per acre for lawns. Put on plenty and avoid disappointment in your lawn. A top dressing of fine manure after sowing and in the fall and spring will be of great benefit. Per lb., 60c; 100 lbs., \$48.00.

**ENGLISH BLUE GRASS** (Meadow Fescue)—A valuable pasture grass. Its long and tender leaves are much relished by all kinds of stock. Cured like Timothy, yields a very superior quality of hay. It is one of the earliest in the spring and latest in the fall. Height, 18 to 24 inches. Per lb., 30c; 100 lbs., \$24.00.

**ITALIAN RYE GRASS**—Similar to the English Rye Grass. Very nutritious and valuable for pasture, especially for early sheep feeding; also excellent for lawn. Height, 18 to 30 inches. Per lb., 20c; 100 lbs., \$15.00.

**ENGLISH PERENNIAL RYE GRASS**—It is invaluable for permanent pastures, for hay, if cut when in blossom, and for lawn mixtures. Height 15 to 24 inches. Per lb., 20c; 100 lbs., \$15.00.

**TIMOTHY**—As a crop of hay Timothy is probably unsurpassed by any other kind of grass. It is greatly relished by all kinds of stock, especially horses; yields more nutritious matter than any other forage plant or grass. Being an early grass it is well adapted to spring and summer grazing, too. Sow 10 to 12 pounds to the acre. It is commonly sown with Red Clover at the rate of ten pounds of Timothy and eight pounds of Clover to the acre. Lb., 15c; 100 lbs., \$8.00.

**RED TOP**—Valuable for moist soils. Good permanent grass. Stands our climate well and adapted to our pastures, in which it should be fed close, for if allowed to go to seed cattle refuse it. Grows best on moist rich soil. On gravelly soil grows lower. Has succeeded on Alkali soils when other grasses failed. Fancy clean or hulled seed, sow 15 to 18 pounds to the acre. Per lb., 30c; 100 lbs., \$25.00.

**BERMUDA GRASS**—Peculiarly adapted to the Southern States. A delicate grass, valuable alike for pasture and hay crop. Grows on any soil. Oklahoma Experiment Station recommends it highly. It does well in south part of Kansas and Southern States generally. Per lb., 75c.

**ORCHARD GRASS**—This is one of the most valuable and widely known of all pasture grasses, coming in the spring and remaining later in the autumn than any other; it grows about 2½ feet high and produces an immense quantity of leaves and foliage. It is well adapted for sowing under trees or orchards and very valuable either for grazing or for hay. Sow about 28 lbs. per acre. Per lb., 30c; 100 lbs., \$23.00.

## GRASS SEED MIXTURES FOR PASTURES

As we are often asked for information as to making up mixtures for pasture, we give below some mixtures as suggested by competent authorities. No doubt one of these will be suited to your climate and soil conditions.

Eastern Oklahoma	Western Oklahoma	Missouri	Rocky Lands of Southern Missouri
5 lbs.....Ky. Blue Grass	4 lbs.....Bermuda Grass	10 lbs.....Ky. Blue Grass	10 lbs.....Orchard Grass
2 lbs.....Bermuda Grass	5 lbs.....Brome Grass	6 lbs.....Timothy	8 lbs.....Timothy
4 lbs.....Timothy	2 lbs.....Timothy	4 lbs.....Red Clover	4 lbs.....Red Clover
6 lbs.....Eng. Blue Grass	2 lbs.....Orchard Grass	2 lbs.....Alsike Clover	1 lb.....Alsike Clover
4 lbs.....Red Clover	5 lbs.....Eng. Blue Grass		
2 lbs.....Alsike Clover	4 lbs.....Red Clover	2 lbs.....White Clover	

Eastern Kansas	Western Kansas	Irrigated Pasture	For High Altitude
10 lbs.....Ky. Blue Grass	10 lbs.....Ky. Blue Grass	5 lbs.....Brome Grass	10 lbs.....Brome Grass
4 lbs.....Red Top	5 lbs.....Brome Grass	6 lbs.....Ky. Blue Grass	5 lbs.....Meadow Fescue
4 lbs.....Timothy	2 lbs.....Timothy	7 lbs.....Peren'l Rye Grass	5 lbs.....Red Top Hulled
6 lbs.....Eng. Blue Grass	2 lbs.....Orchard Grass	6 lbs.....Hulled Red Top	5 lbs.....Alsike Clover
4 lbs.....Red Clover	5 lbs.....Eng. Blue Grass	3 lbs.....Orchard Grass	5 lbs.....Timothy
2 lbs.....Alsike Clover	4 lbs.....Red Clover	2 lbs.....Red Clover	
	2 lbs.....Alsike Clover	2 lbs.....Alfalfa	<b>Dry Light Sandy Soil</b>
		3 lbs.....White Clover	8 lbs.....Ky. Blue Grass
			16 lbs.....Meadow Fescue
			10 lbs.....Brome Grass
			2 lbs.....White Clover

THE ABOVE QUANTITIES ARE FOR ONE ACRE

## DWARF ESSEX RAPE

Dwarf Essex Rape has long been the main standby of the English farmer in raising choice mutton and it should be more generally planted in this country. In the northern states it can be used as an all season crop, but in the middle and southern states it is best for late summer and fall planting.

It makes excellent pasture for hogs, sheep and cattle. It is especially valuable for feeding young lambs at weaning time. Hogs do not bloat on it but care should be taken in turning sheep and cattle on to it. It is a good plan to give them a full feed of grain before letting them into the rape.

Rape will endure severe cold weather and will last a long time after the ordinary pasture grasses succumb

to frost. It is a rank grower and will stand heavy manuring and high cultivation. Poultry men will do well to sow a small patch for their chickens. Sow it on wheat stubble for fall pasture.

Dwarf Essex Rape may be sown either broadcast or in rows. Drilling in rows has many advantages as cultivation increases the yield, conserves the moisture and keeps down the weeds. There is also less waste in pasturing as the animals are inclined to follow the rows and not tramp on the plants.

In sowing small pastures the ordinary garden drill is very satisfactory and for large fields a grain drill with some of the feed hoppers closed up may be used. If sown in drills it takes from three to five pounds and if broadcast from five to ten pounds to the acre. Try some dwarf Essex Rape in the fall. You will find it very profitable. Per lb., 15c; 100 lbs., \$12.00.

## FIELD PEAS

60 lbs. to Bushel. Prices on application.

Field Peas are largely grown in Southern States, both as a hay crop and as a fertilizer, in which respect, they are of great value. The peas may be sown in corn at the time of last cultivation, or after a crop of early potatoes. They may be sown broadcast at the rate of one and one-half bushels per acre, or they can be planted in rows about three feet apart with a corn planter. This will require only one-half bushel of seed per acre. The cow peas, by their rapid, rank growth, keep down weeds and put soil in good, friable condition for the next year's crop, increasing the fertility of the soil to a remarkable extent. The vines furnish an excellent green food for milch cows until frost, or they may be cut and cured for hay; or a very profitable way to dispose of the crop is to turn hogs into the field at the time the first peas are ripening. They readily eat the foliage and well filled pods, and thrive amazingly. Or the entire crop may be plowed under as a green manure.

**WHIPPOORWILL**—A favorite early bunch-growing variety; has brown speckled seeds, which are more easily gathered than the vine-growing sorts. This variety is a prime favorite on account of its early maturity and habits.

**NEW ERA**—This Pea is fully two weeks earlier than the popular Whippoorwill variety; a very great advantage to the farmer. In size it is one-third smaller than the Whippoorwill—another great advantage. It is a so-called Bunch Pea, similar to the Whippoorwill in growth. In sections of Missouri and Illinois the New Era Pea is planted after the wheat crop has been cut, and matures early enough in the fall to harvest in time to sow winter wheat on the same field. This cannot be said of any other variety of Cow Peas.

**CANADIAN FIELD PEAS**—For dairy cows and hogs they are equal to corn, and six weeks earlier. They should be sown early in April with oats (using two bushels of oats and  $\frac{1}{2}$  bushel of peas per acre. The peas should be sown first and plowed under to a depth of about four inches, then sow and harrow in the oats. They will be ready to cut in July. As a fertilizer they come next to clover, and will grow on land that will not produce clover.

**SOY BEANS** as a feed takes the place of oil or gluten meal. Feeding them to milch cows, fattening cows or hogs, they have given astonishing results. Sow broadcast, use  $1\frac{1}{2}$  bushels to the acre. We have two varieties—the Early Yellow and the Late Mammoth—the latter should only be planted in Southern states, as they are very late in maturing.

**EARLY YELLOW SOY BEANS.**

**LATE MAMMOTH SOY BEANS.**

## MILLET

50 Pounds Per Bushel

The several varieties will furnish food for live stock in the form of grain, fodder or pasture. Especially valuable in season when the hay crop is short. They make the best hay if cut when in blossom and carefully cured.

**GERMAN**—It is usually given preference, by those who use Millets, over the common variety and Hungarian. It is a strong grower and will yield enormous crops of the finest hay, and should be cut before the seeds harden. Can be sown late after some early crop, and if sown early will mature in time for the ground to be plowed for wheat, and it leaves the ground in fine shape for this purpose. For grain, sow in drills not later than June 20. Per lb., 10c; 100 lbs., \$2.50.

**SUDAN GRASS**—In Sudan Grass, Western farmers have a crop that will add thousands of dollars to their profits every year. It is especially valuable to the Western sections, where other tame grasses cannot be grown and hay is scarce.

It yields from four to six tons of excellent hay per acre. Horses and cattle are very fond of it and will leave almost any kind of roughage for Sudan Grass, cleaning up heads, blades and stalks.

Sudan Grass is generally planted in rows about thirty-six to forty-two inches apart, using from two to four pounds of seed per acre. If sown broadcast 15 lbs. of seed is necessary to plant an acre. It should not be planted until the soil has become warm in the spring. Planting in cold soil only delays germination and dwarfs the early growth. It can be sown any time during the summer as a catch crop, so long as seventy to eighty days intervene before the date of the first expected frost.

Some of the most desirable characteristics of Sudan Grass are its drouth-resisting qualities, its ability to produce on thin land, and its quick maturity under ordinary conditions.

If you want some good hay even in a drouth, plant Sudan. Per lb., 10c; 100 lbs., \$6.00.

## SAND VETCH

Prices on Application

**VICIA VILLOSA**—Sometimes called Hairy Vetch or Winter Vetch. This is one of the most valuable plants for forage and fertilizing purposes. It will succeed and make a good crop on poor, sandy soils and also a better crop on good land. It is perfectly hardy throughout the United States and remains green all winter. Vetch belongs to the same family as Alfalfa and Sweet Clover, and has the same ability to gather nitrogen from the air and store it in the root system. The roots are very extensive and add a great deal of valuable material to the soil. It thus improves the conditions and the productiveness of the land for the crops to follow.

It is an excellent catch crop, makes good hay, silage, and pasture. Vetch can be sown from July until November, and should be sown broadcast at the rate of about 30 lbs. per acre together with one bushel of either oats or rye. Vetch grows quite tall and needs the oats or rye for support. They make a better growth, and are more easily harvested and cured. For a hay crop the Vetch should be cut just after the oats or rye has headed out. The yield of green fodder is immense.

**SPRING VETCHES OR TARES**—Similar in growth to Sand Vetch, but for spring planting only.

## CANE

50 Pounds Per Bushel

Price Subject to Market Change

**EARLY AMBER**—Farmers and stockmen say that Early Amber Cane is the most valuable fodder plant in existence. Not only is it adapted for feeding purposes, but its great qualities as a Sorghum producer is one of a paying investment, and has attracted general attention everywhere. It is profitably grown anywhere from Manitoba to Mexico, on any good corn ground and is but little affected by drouth. Per lb., 10c; 100 lbs., \$2.50.

**EARLY ORANGE**—A variety well adapted for the South. It is from eight to ten days later than the Early Amber and produces a syrup of excellent quality. Per lb., 10c; 100 lbs., \$2.50.

## YELLOW MILO MAIZE (MILO)

50 Pounds Per Bushel

Growth is tall, 9 to 12 feet, stooling from the ground like White Milo Maize, but not so much. It sends shoots also from the joints. Seed heads grow to great size, often weighing  $\frac{3}{4}$  of a pound, sometimes a full pound after ripening. On account of its branching habits this grain should be planted in rows 4 to 5 feet apart, and 2 to 3 feet in the drill, or two plants in a hill, 3 to 5 feet apart. Per lb., 10c; 100 lbs., \$2.50.

**WHITE KAFFIR CORN**—Grows low, stock perfectly erect; the foliage is wide, alternating closely on either side of the stalk. It does not stool from the root, but branches from the top joints, producing from two to four heads of grain from each stalk. On very thin and worn lands it yields paying crops of grain and forage even in dry seasons, in which corn has utterly failed on the same land. If cut down to the ground two or more shoots spring from the root and growth is thus maintained until checked by frost. Per lb., 10c; 100 lbs., \$2.50.

**RED KAFFIR CORN**—About same in habit of growth as above; produces red seed. Per lb., 10c; 100 lbs., \$3.50.

## FETERITA

The two best features about Feterita are its wonderful ability to resist drouth and its earliness. It proved its ability to stand dry weather. It made good yields and in some cases without any rain whatever. Some growers report that Feterita is fully thirty-five to fifty days earlier than Kaffir and this also is a big advantage. Those of you who have had Kaffir Corn caught by the frost will appreciate this. Per lb., 10c; 100 lbs., \$3.00.

## BROOM CORN

Will succeed in any good corn soil and will make a crop with little rain. Besides the brush, it will produce a large yield of grain equal in feeding value to oats. Three pounds of seed are required for an acre when drilled in rows 3 feet apart.

**IMPROVED EVERGREEN**—A favorite in Kansas, Nebraska and Missouri. Grows to a good length, and if cut at the proper time retains a good color. Per lb., 15c; 100 lbs., \$6.00.

**DWARF BROOM CORN**—This variety grows only 3 or 4 feet high, and is much easier handled than the tall growing sorts. The brush is straight, smooth and of good quality. Per lb., 15c; 100 lbs., \$7.00.

## OATS



FIELD OF OUR RED TEXAS RUST-PROOF OATS—75 bu. per Acre

Prices on Application

**RED TEXAS RUST-PROOF OATS**—Very early, rust-proof, does well on thin ground and does not lodge, will bear neglect or a bad season and still make a crop.

**WHITE BONANZA**—One of the finest varieties in cultivation and yields extraordinary crop; very early, stiff straw, grows four feet high; heads remarkably heavy; grain short and plump; resembling barley in shape, and has never rusted or fallen down on the richest soil;

weighs from 35 to 40 pounds per level bushel. Prices on application.

**BUCKWHEAT**—Japanese; Silver Hull; Common.

**SEED RYE**—Rye does best on rich sandy soil, almost a sure crop every year; should be sown in August or September, either in drills or broadcast, at the rate of one to one and one-half bushels per acre; is raised both for pasture and grain. Per bu. (56 lbs.) \$1.50.

## PEANUTS

Until recently it was thought that Peanuts could be raised only in the South, but they are now raised as far North as Iowa. In the last few years Peanuts have become very popular for dry land farming. They are classed with Dwarf Milo and Feterita in their ability to withstand dry weather, and made good returns in the dry summer of 1913.

The tops of the plants make good hay, and in the Southern States it brings a very good price. The yield, even in dry seasons, is from one-half to three-quarters of a ton of hay and from fifteen to twenty bushels of nuts per acre. The whole peanut plant makes nice feed for forcing cows to a high yield of milk and for rapidly fattening cattle and hogs, especially when combined with grain of Milo. A common method of harvesting is to let the hogs gather the nuts.

The Spanish Peanuts are generally planted when wanted for farm use. The nuts are small, but they stand dry weather better.

Peanuts do best in light sandy loam. They should be planted in rows from 28 to 36 inches apart and from 9 to 16 inches apart in the row. They need not be shelled but should be soaked in warm water a day or so and then planted at once in warm soil. Planting should not be done until the weather is good and warm. They should be cultivated and kept clean until they begin to form pods. After that they should be left alone.

It takes from one peck to a peck and a half of shelled nuts and from a bushel to a bushel and a half in the shell to plant an acre.

**WHITE JUMBO**—This is the standard variety for roasting. The peanuts are three times as large as those of the ordinary Spanish peanut. The nuts proper grow in fine double-jointed hulls of beautiful white appearance, are from one-half to one inch in length, and of fine flavor. An excellent variety worthy of the highest recommendation. Pound, 25c.

**SPANISH**—The earliest variety grown, pods are small, but remarkably well filled and solid, and the yield per acre is very large. Can be cultivated with the plow. Because of its early habit and easy cultivation it is the best variety to grow for fattening hogs. Pound, 25c.

## MAMMOTH RUSSIAN SUNFLOWER

Unequaled for a Food for Poultry

**MAMMOTH RUSSIAN SUNFLOWERS** produce very large heads, often twenty inches across, which are completely filled with the striped grains. It succeeds everywhere, and requires but little rain to insure a crop. It makes an enormous yield of seed. It is a good food for stock and cannot be equaled as a food for poultry, being the greatest egg-producing food known. The heavy stalks make good fuel. The plant, when growing is also said to be a protection from malaria. Plant when the ground becomes warm at the rate of two pounds per acre. Pound, 15c; 10 lbs., \$1.25; 100 lbs., \$9.00.

**HEMP SEED**—Pound, 15c; 10 lbs., \$1.25.

**CANARY SEED**—Pound, 20c; 10 lbs., \$1.50.

## TESTED, SELECTED, GRADED SEED CORN

All of our seed corn is grown by a corn spwphen GOOD SEED is so cheap? Ask for prices.

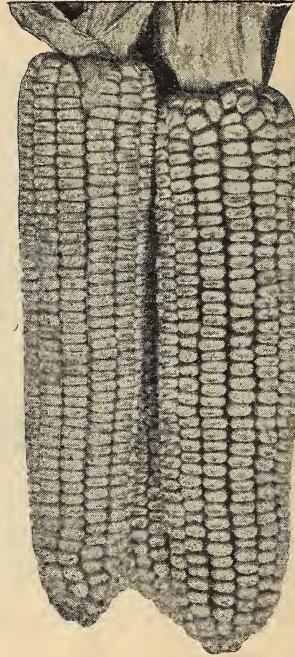
Do you deem it wise to risk doubtful corn ecialist and has been carefully selected. Nothing is sent out which does not show a high test of germination. It costs less than 50 cents an acre to use our carefully selected SEED CORN. We offer the following varieties:

**REID'S YELLOW DENT**—This is a splendid yellow dent variety with eighteen to twenty-four rows of kernels on an ear. The cob is small and grains are very close together so that there is scarcely any room between the rows. Reid's Yellow Dent has been awarded more prizes at Corn Shows than any other variety. The ears average from eight to eleven inches in length. The stalks are very heavy, and are not easily blown down. This corn will mature under favorable conditions in about 90 days. Our stock is grown for us by one of the largest and most reliable growers.

**CHAMPION WHITE PEARL**—An extra early, pure white variety of the Dent family; very productive and exceedingly early, maturing in 85 to 90 days from the time of planting. The grain is extra deep and wide, two of which will more than span the cob, which is very small.

**BOONE COUNTY WHITE**—An exceedingly large-eared white corn with small cob for size of ear. Solid, medium early and extremely productive—best white corn in existence. Don't fail to try it.

**HICKORY KING—100 Days**—The cob is so small and the grain is so large that when an ear is broken in half, one grain will cover the entire end of the cob. Nearly all of the stalks bear two ears, and we consider it one of the best white corns grown. It ripens in from 100 to 110 days from time of planting.



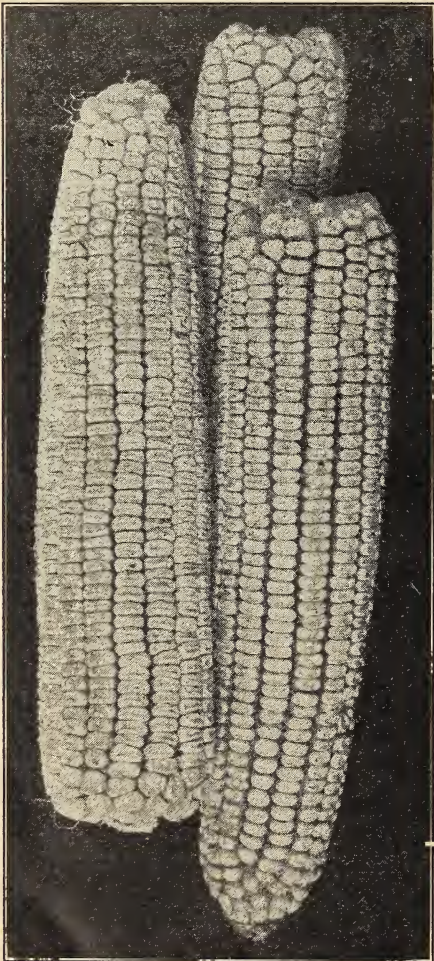
BOONE CO. WHITE

**IOWA GOLD MINE—90 days**—Is very early; ripening only a few days later than Pride of the North; golden yellow; grain very deep; cob small. Will make excellent early crop, or will mature if planted after wheat is cut or early potatoes dug.

**GOLDEN BEAUTY—120 Days**—This variety is a very large grained and a handsome yellow corn. The ears are of perfect shape, with from ten to fourteen straight rows of brightest golden yellow with grains of remarkable size, small cob, filled out completely to the extreme end. The richness of color and fine quality of grain make it very superior for grinding into meal.

**JACKSON COUNTY WHITE**—It resembles the Reid's Yellow Dent in size, only the length of the grain is narrower and longer; usually running  $\frac{1}{2}$  inch in length and from 24 to 26 rows to the ear. Ears run uniform in size from butt to tip and filled out completely at the ends. This corn yielded 70 bushels to the acre this year and matured in about 95 days. We consider this the best white corn on the market. We have selected several hundred bushels of this corn and already have sold part of it. Would advise you to give us your order early.

**IOWA SILVER MINE—White**—Stalks grow to a height of about 7 or 8 feet and set the ears about  $3\frac{1}{2}$  or 4 feet from the ground. Ears 10 to 12 inches in length, weighing one and one-half pounds; uniform in size and shape, with pure white kernels set on a small white cob, and are well filled out over the tip. It is early, maturing in 95 days. Seventy pounds of corn in the ear will make 60 pounds shelled. It is hardy, a great drouth resister and summing it all up, the acme of perfection.



REID'S YELLOW DENT

## SEED POPCORN ON EAR

**WHITE RICE**—A very handsome variety; kernels long, pointed and resembling rice; color white; very prolific. Pound, 20c; 10 lbs., \$1.75; 50 lbs., \$7.50.

**QUEEN'S GOLDEN**—The stalks grow 6 feet high, and the large ears are produced in abundance. It pops perfectly white, and a single kernel will expand to a diameter of one inch. Pound, 20c; 10 lbs., \$1.75; 50 lbs., \$7.50.

## SWEET POTATOES

Prices Subject to Change  
50 pounds at 100 pound rates

**YELLOW NANSEMOND**—Standard variety for main crop. 100 lbs., \$5.00.  
**RED NANSEMOND**—Like above, except skin is red. 100 lbs., \$6.00.  
**JERSEY YELLOW**—Shorter and thicker than Nansemond. 100 lbs., \$5.00.  
**NANCY HALL**—The best of the yellow varieties. 100 lbs., \$6.00.  
**SOUTHERN QUEEN**—A large early potato. 100 lbs., \$6.00.  
**RED BERMUDA**—A large early potato. 100 lbs., \$6.00.  
Sweet Potato Plants in Season—Ask for Prices.

## SEED POTATOES



RED RIVER OHIO  
POTATOES 60 LBS. PER BUSHEL

### Prices on Application

**RED RIVER OHIO**—This potato is grown in the Red River Valley, and well pays for the difference in price of it and the native Ohio, and after once having planted them, you will plant no other.

**TRUE EARLY ROSE**—The Early Rose is a standard early potato and is so well known as to need no description. We are prepared to sell fine Northern grown selected stock.

**IRISH COBBLER**—One of the most popular of the early varieties. Its excellent quality, together with its cream-white color makes it fine for the best trade. It is a vigorous grower, a good keeper, and ripens uniformly.

**BURBANK**—White skinned, few eyes, fine grained flesh, dry and floury when cooked; very productive, ripening between the early and late varieties.

**TRIUMPH**—Red River Stock—This potato is much sought after on account of its productiveness, fine quality and beautiful appearance, which makes it one of the best early market varieties, especially for the South, from which they are shipped to Northern markets, bringing the highest prices.

**RURAL NEW YORKER**—One of the largest yielding varieties in existence. Large and unusually smooth, with few shallow eyes; skin white as is also flesh, which is of superior quality. Medium late and the best drouth register. There is no other Potato of more handsome appearance than the Rural New York. Although it is a large yielder it grows but few and small vines. It is very hardy and will stand the heaviest manuring without getting scabby or spotted. For this reason it is one of the most desirable varieties for farmers and potato growers near large cities to grow for main crop for market.

If you are raising Sweet Potatoes for market, note description of our Transplanter, Page 63. You cannot afford to be without one. Ask for list of satisfied users.

# Pratts

## Animal and Poultry Regulators and Remedies. Buttermilk Baby Chick Food.

### SATISFACTION GUARANTEED OR MONEY BACK

Healthy birds and lots of eggs, the two big things in poultry raising, are made certain by giving

#### Pratts Poultry Regulator

Packages, 25c, 50c; 12-lb. Pails, \$1.65; 25-lb. Pails, \$3. It builds up vitality, insures sound digestion, sharpens appetite and prevents disease, thus putting birds into condition for heavy egg laying or winning blue ribbons. Given to breeding stock it insures fertile eggs, strong in vitality, that will hatch chicks that will grow. Use it if you want big hatches of healthy chicks that will develop into husky pullets and cockerels.

Don't let ROUP cut your profits. The sure and easy "ounce of prevention" against this dangerously contagious disease is

#### Pratts Roup Remedy

Tablets or Powder, 25c and 50c

Quickly absorbed by the blood, purifies the system, reduces fever, allays inflammation. The safe remedy for roup, colds, catarrh and all bad weather diseases.

Get rid of lice on your poultry, in nests, dustbaths, incubators and elsewhere in a day's time by using

#### Pratts Powdered Lice Killer

Packages 25c and 50c

Effective, non-poisonous, non-irritating. It quickly and thoroughly kills all lice on little chicks, big chicks, setting hens and incubator chicks. It rids horses, cattle, hogs, dogs and cats of lice, and destroys ticks on sheep. It destroys insects and bugs on vines, plants and flowers. Drives out moths from closets, furniture, carpets and clothing.

Pratts Head Lice Ointment.....	35c
Pratts White Diarrhoea Tablets.....	25c and 50c
Pratts Special Remedy (for Cholera).....	25c and 50c
Pratts Condition Tablets.....	25c and 50c
Pratts Gape Remedy.....	30c and 60c
Pratts Sore-Head Chicken-Pox Remedy.....	35c and 70c
Pratts Scaly Leg Remedy.....	35c and 70c



#### Pratts Baby Chick Food

(Contains Buttermilk) It is a complete ration for baby chicks, providing growth and preventing disease. It makes bone and muscle and saves chicks from leg weakness and digestive troubles. It has been appropriately called "baby chick life insurance."

More work out of your horses, more milk from your cows, fatter hogs. These are a few of the benefits which come from using.

#### Pratts Animal Regulator

This is the original and pioneer stock regulator of America. Tested thoroughly for nearly half a century, its worth is known and recognized by stock owners the world over. Always sold on a guarantee that it will satisfy you or your money back.

12 lb. pails, \$2.15.  
25 lb. pails, \$3.40, are popular with our customers.

Packages, 25c, 50c and \$1.00.



Keep disease away from poultry. Kill lice and mites. Disinfect the poultry house with

#### Pratts Poultry Disinfectant

A quick, effective germicide, insecticide and deodorant. As a spray around stables, cow and hog lots, and for use on dogs, cats and pets generally, it is unsurpassed for effectiveness. It is non-irritating and its pleasing, clean odor makes it admirable for household use.

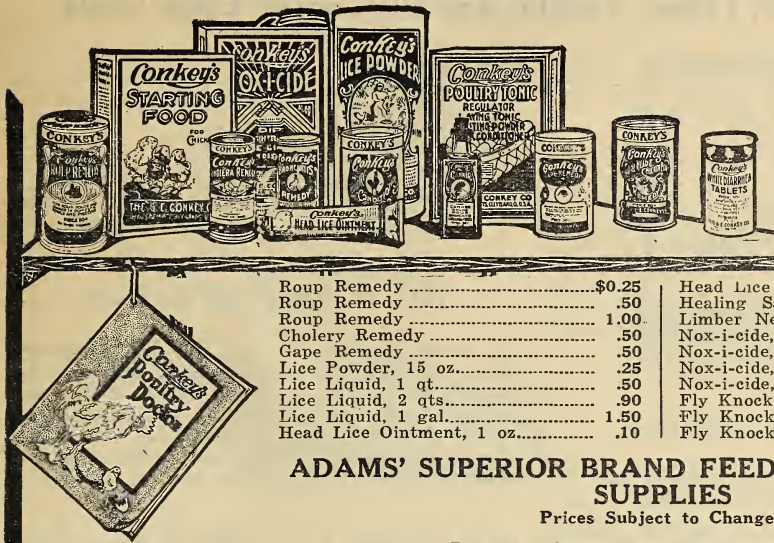
Put up in Quart, Half-Gallon and Gallon Cans.

1 qt. cans, 55c; 2 qt. cans, 95c; 1 gal. cans, \$1.60.



**A Guaranteed Pratt Remedy for Most Poultry Diseases**

## CONKEY'S GOOD POULTRY REMEDIES



Healthy  
Poultry  
Pays

Roup Remedy .....	\$0.25	Head Lice Ointment, 3 oz.....	.25
Roup Remedy .....	.50	Healing Salve.....	.25
Roup Remedy .....	1.00	Limber Neck Remedy.....	.50
Cholery Remedy .....	.50	Nox-i-cide, pt.....	.45
Gape Remedy .....	.50	Nox-i-cide, qt.....	.70
Lice Powder, 15 oz.....	.25	Nox-i-cide, 2 qts.....	1.15
Lice Liquid, 1 qt.....	.50	Nox-i-cide, gal.....	1.80
Lice Liquid, 2 qts.....	.90	Fly Knockers, qt.....	.60
Lice Liquid, 1 gal.....	1.50	Fly Knockers, 2 qts.....	.90
Head Lice Ointment, 1 oz.....	.10	Fly Knockers, gal.....	1.50

## ADAMS' SUPERIOR BRAND FEEDS AND POULTRY SUPPLIES

Prices Subject to Change

Postage and Express to be Paid by Purchaser  
From the many foods and remedies offered we have selected those that have uniformly given entire satisfaction and when used as directed will increase your sales and profits.

## ADAMS' SUPERIOR BRAND LAYING MASH

For some time we have been endeavoring to perfect a laying mash for hens that was worthy the name of a Laying Mash. In Adams Superior Brand Laying Mash we feel that we have an article we can offer the consumer with every assurance that he will not be disappointed in the final result when fed in connection with Adams Superior Brand Hen Scratch. Adams' Superior Brand Laying Mash contains dried milk, meat meal, bone meal and various other ingredients which "starts them laying and keeps them at it." 100-lb. bags, \$3.00. Write for prices on larger quantities.

Scientifically compounded for young chicks, laying hens and fattening fowls.

Per 100 lbs.

Adams' Chick Scratch—For growing chicks.....	\$2.00
Adams' Scratch—For laying hens.....	2.00
Meal Alfalfa.....	2.50
Oil Meal—Ground.....	3.75
Flax Seed Meal, per lb., 15c.....	10.00
Charcoal (Granulated)—An excellent corrective for the fowls, and keeps them healthy; 3 lbs. 25c; 100 lbs.....	4.00

**COARSE POULTRY BONE**—Consists of ground beef bone dried and free from grease; rich in Bone Phosphate of Lime; shell maker and bone builder. Pound, 10c; 3 lbs., 25c; 100 lbs., \$4.25.

**FINE GROUND BONE**—Same as above, but ground finer for little chicks. Price as above.

**FINE GROUND BLOOD**—A highly concentrated food for hens. Makes them lay more eggs—in fact, keeps them busy all the year around. A great help during the moulting season. Should always be mixed with other foods in the proportion of 15 to 1. Pound, 10c; 100 lbs., \$5.00.

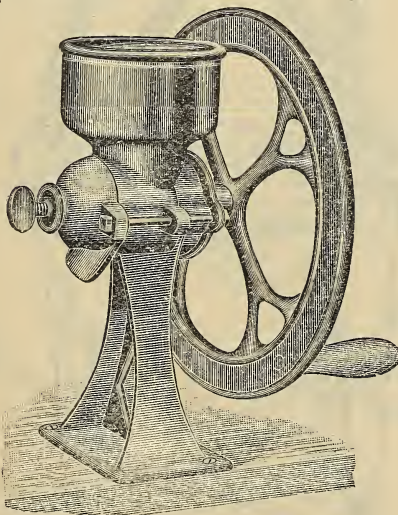
**BEEF SCRAPS**—Especially prepared for poultry food; feed three times a week, about a tablespoon to each bird. Pound, 10c; 3 lbs., 25c; 100 lbs., \$5.00.

**OYSTER SHELL**—Shell former. 100 lbs., \$1.25; 500 lbs., \$1.10 per 100 lbs.

**LIMA SMALL GRIT**—100 lbs., \$1.25; 500 lb. lots, \$1.15 per 100 pounds.

**CRISCO GRIT**—Shell and Egg producer. 100 lbs., \$1.25; 500 lbs., \$1.15 per 100 lbs.

**BIRD SEED**—If to be sent by mail, add postage. Our best mixed Bird Seed is put up according to the best formula for the health of birds, from the cleanest and choicest seeds. Special prices on larger lots. Mixed Bird Seed, per lb., 20c; Canary Seed, per lb., 20c; Hemp Seed, per lb., 15c; Rape Seed, per lb., 20c.



## THE MODEL GRINDING MILL

The primary object of these mills is to grind all kinds of feed for chickens and other domestic fowls and animals.

An improved Hand Power Grinding Mill of new and elegant design, compactly made of strong and durable metal.

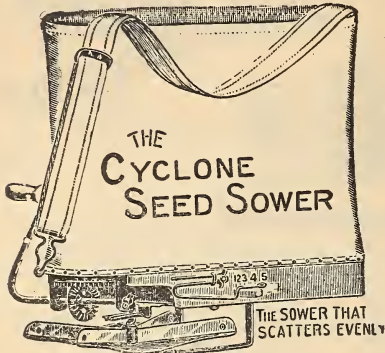
Their capacity is about as follows, depending on the condition of the grain or fineness of the meal:

## PRICES

	Weight	
No. 1, ½ to 1 bushel per hour.....	20 lbs.,	\$5.50
No. 2, ¾ to 1½ bushels per hour.....	35 lbs.,	8.75
No. 3, 1 to 2 bushels per hour.....	63 lbs.,	11.00

## HAND SEED SOWERS (Broadcast)

Will Sow Alfalfa, Clover, Timothy and all Kinds of Grass Seeds



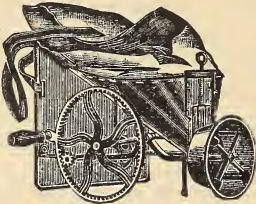
### THE CYCLONE SEEDER

A good seed sower will pay for itself in the sowing of a few acres. Three-fourths of a bushel of seed distributed evenly will give better results than a bushel of seed poorly distributed.

The Cyclone Seeder will distribute the seed perfectly even and will not throw it in an upward direction or against the operator but direct and evenly to the ground.

The machine is supplied with a patented interlock, double flange, non-solder tin distributing wheel and an automatic feed adjustment so that the seed can be let on or shut off instantly.

Three special features of the Cyclone are—Slant Feed Board, Sheet Steel Oscillating Feed Plate. Non-Solder Tin Distributing Wheel. Price, each, \$2.50.



CAHOON SOWER

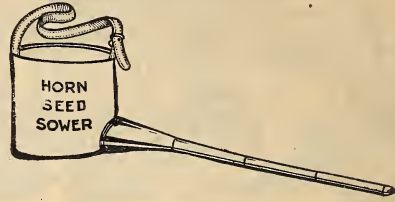
### CAHOON'S HAND SEED SOWER

For sowing alfalfa, wheat, oats, barley, rye, buck-wheat, grass seeds, etc. The best machine of the kind in the market. The grain is held in tight sheet iron hopper, surrounded by a bag that will hold a bushel of seed. This is suspended by a strap from the operator's neck and held in position by a strap around the waist. The seed is thrown from eight to twenty feet on each side of the operator, the heaviest seed being, of course, thrown the greatest distance. Price \$5.25.



### LITTLE GIANT NO. 3 SEED SOWER

This is a machine that will do perfect work and will sow all kinds of seed that is sown broadcast. Is strong and light and works easy. It is a labor saver and will be sure to please the user. Price each, \$2.50.

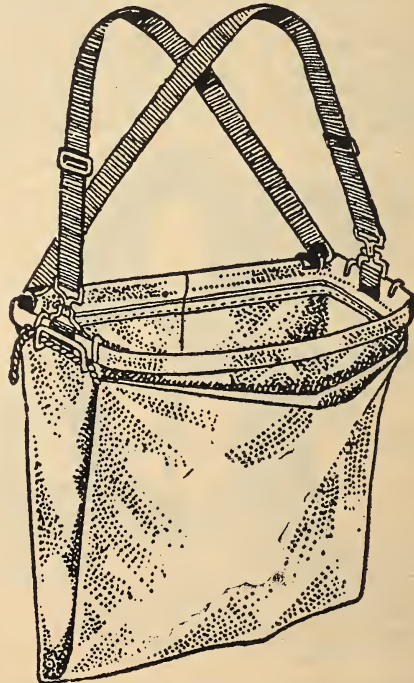


### THE HORN SEED SOWER

This Sower consists of a sack and a sectional tin tube. The sack is made from heavy duck and the sower is operated by a swinging motion of the tube. It will sow the different varieties of farm seed and will do good work. You can get money back if not pleased with it. Full directions for adjusting and operating on each machine. Price, \$1.25.

### THE PORTLAND FRUIT PICKING BAG

This bag is especially practical to fruit growers during the harvest time for apples or peaches. It will hold about  $\frac{1}{2}$  bushel and is made of heavy 16-oz. white duck



reinforced on the inside with metal bands with adjustable shoulder straps which are attached to the metal band which makes the load easy to carry. Our large trade the past two seasons is sufficient evidence that the bag is indispensable to growers of all tree fruit. Price, each, \$2.25; per dozen, \$25.00.

## PLANET JR. FARM AND GARDEN TOOLS

Planet Jr. Catalog FREE. Write for it.

You can't afford to farm without Planet Jr. Tools. They do the work of three to six men—do it better, give bigger results, and last a life-time. Over two million farmers and gardeners are using them. Join their ranks now and share their success. Fully guaranteed.

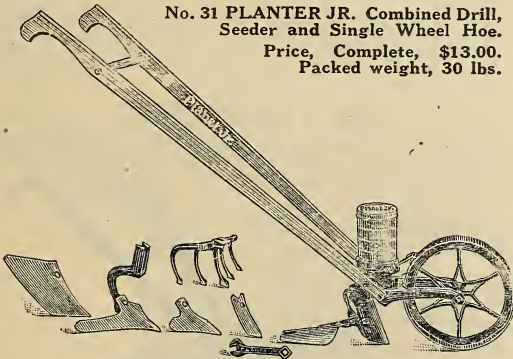
**No. 4 PLANET JR. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow,**  
Price, Complete, \$19.50.



### NO. 4 PLANET JR. COMBINED HILL AND DRILL SEEDER

This accurate, durable and easy-running tool sows all garden seeds from the smallest up to peas and beans in hills, 4, 6, 8, 12 inches apart, or in drills at the proper thickness and depth; rolling down and marking out the next row all at one passage. No time is lost. No seed is wasted. By removing the seeder parts and substituting the tool frame, you have a first-class single wheel hoe with a set of specialty hardened steel tools, the best made.

**No. 4 D, HILL AND DRILL SEEDER**—Same as above, less the cultivating attachments. Price, \$15.50.



**No. 31 PLANET JR. Combined Drill, Seeder and Single Wheel Hoe.**  
Price, Complete, \$13.00.  
Packed weight, 30 lbs.

**No. 12**—A single and double wheel hoe in one. Straddles crops till 20 inches high, then works between. Has steel frames, and 14-inch steel wheels. The greatest hand-cultivating tool in the world.

**No. 13 DOUBLE WHEEL HOE.** Price \$9.00.

This tool is the No. 12, with 6-inch hoes only, these being the tools that are most used. Any of the attachments shown with No. 12 may be added at any time.

### NO. 25 PLANET JR. COMBINED HILL AND DRILL SEEDER

This combination is intended for gardeners who have a large enough acreage in crops for a double wheel hoe to be used to good advantage, and yet prefer not to buy seeders and wheel hoes separately; and for the family garden where a double wheel hoe is preferred. As a seeder it is practically the same as the Planet Jr. No. 4, and as a wheel hoe has the same steel frames and cultivating attachments as the Planet Jr. No. 12 Double Wheel Hoe.

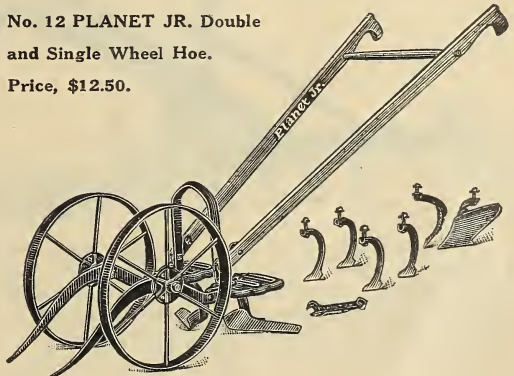


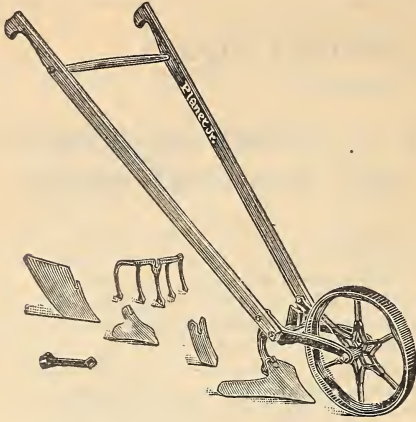
**No. 25 PLANET JR. Combined Hill and Drill Seeder, Double Wheel Hoe, Cultivator and Plow.** Price \$23.00.

### NO. 31 PLANET JR. COMBINED DRILL SEEDER

This new tool is of great value to gardeners who have never felt able to own either a seed drill or a wheel hoe. It will sow even a small packet of garden seed with great precision. Quickly changed to a splendid wheel hoe. A special machine for the small gardener.

**No. 12 PLANET JR. Double and Single Wheel Hoe.**  
Price, \$12.50.





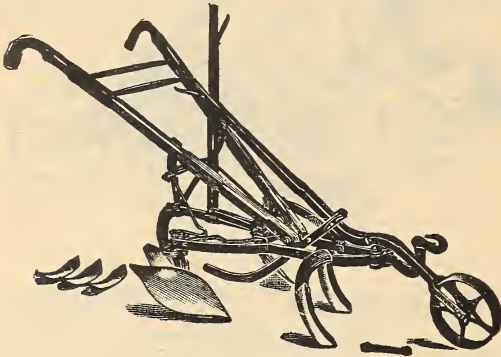
No. 19 PLANET JR. Wheel Hoe. Price, \$6.25.

No. 9 HORSE HOE is an admirable tool which is identical with No. 7, except that it has a plain wheel instead of the lever wheel.

This tool has become popular because of its strength. All steels specially hardened and unbreakable. The handles are adjustable in height and also sidewise, and the equipment as shown in the cut offers a tool which will always be useful.

The Planet Jr. Combined Horse Hoe and Cultivator is in use throughout the civilized world. It is so strongly built as to withstand incredible strain, yet it is easy to handle. One can cultivate to any width. Every part is perfected to make the tool accessible to the intelligent farmer's desires.

The wheel is the same diameter as our cast-iron wheel. The tire is pressed into position and electrically welded.

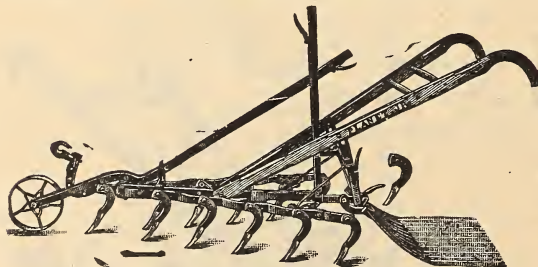


No. 8 PLANET JR. Horse Hoe. Price, Complete, \$19.50.

No. 90 PLANET JR., 12-Tooth Harrow, Cultivator and Pulverizer. Price, Complete, \$20.00.

No. 90B, Without Pulverizer, \$16.75.

No. 90D, Without Pulverizer or Wheel, Price, \$13.00.



An invaluable tool in the market garden, truck and strawberry patches. Has new steel wheel which prevents clogging. Its 12 chisel-shaped teeth cut out all weeds, stir and mellow the soil and leave the ground in finest condition without throwing dirt on plants.

#### 72-Page Planet Jr. Catalogue Free.

Describes 70 tools, including Seeders, Wheel Hoes, Horse Hoes, Harrows, Orchard and Beet Cultivators.

#### Write Postal for It

No. 19—This attractive implement is especially designed for the farmer's garden work, though it offers to every one with either field or garden a cheap and effective tool for wheel-hoe operation. The high wheel makes easy running; the standard is slotted for depth regulation and an adjustable malleable piece carries any of the steels that go with the machine. The cultivating tooth does deep work and marks out rows for onion sets, plants, etc. The sweep is fine for level work. For wide rows go twice to the row as needed. The plow marks out furrows, covers them, and plows to or from the crop as wanted. Use the five prong attachment for both deep and shallow work. The great variety and fine shape and quality of the tools makes the implement light running and effective. It is strong, well made, and quickly adjusted. The height of the handles can be changed to suit man or woman, boy or girl.

#### Equipment:

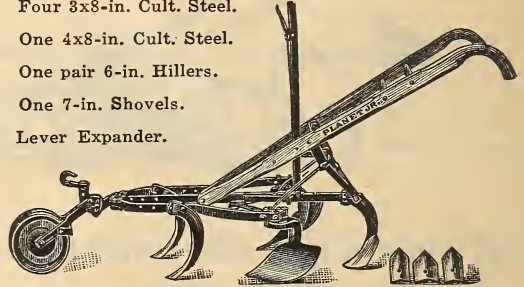
Four 3x8-in. Cult. Steel.

One 4x8-in. Cult. Steel.

One pair 6-in. Hillers.

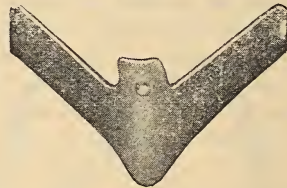
One 7-in. Shovels.

Lever Expander.



No. 9 PLANET JR., Horse Hoe. Price, with new Steel Wheel, \$17.00. Packed weight, 70 lbs.

No. 9D HORSE HOE (Without Wheel), \$14.75. Packed weight, 63 lbs.



#### PLANET JR. SWEEPS

Just the thing for light cultivation during dry weather. It is especially valuable to potato growers and gardeners.

10 in. and bolt, each.....	\$0.95
12 in. and bolt, each.....	1.05
15 in. and bolt, each.....	1.20
18 in. and bolt, each.....	1.55
24 in. and bolt, each.....	3.00

#### NO. 8 PLANET JR.

Stronger; better made, and capable of a greater variety of work than any other cultivator made. Non-clogging steel wheel. Depth regulator and extra long frame make it run steady.

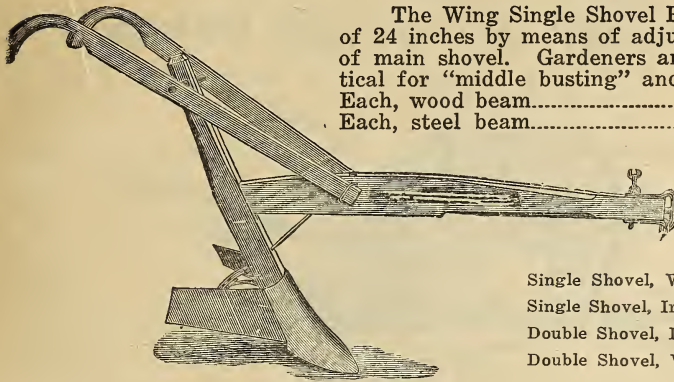
Cut down your living expenses. You'll be astonished how easy it is to save time, labor, and money, and get bigger and better crops when you use Planet Jr. Garden Tools.



#### ADAMS' CLIPPER CULTIVATOR

This Garden Cultivator has made a pronounced hit with the trade. The Clipper is light, strong and durable and the 24-inch high wheel makes it exceedingly easy to handle. Equipped with rake and three styles of shovels which will serve any purpose desired. Weight, 23 pounds. Price, \$5.00.

## WING, SINGLE AND DOUBLE SHOVEL PLOWS



The Wing Single Shovel Plow may be widened to a width of 24 inches by means of adjustment key and cross bars back of main shovel. Gardeners and growers find this very practical for "middle busting" and ridging sweet potatoes.

Each, wood beam.....\$7.00  
Each, steel beam..... 7.50

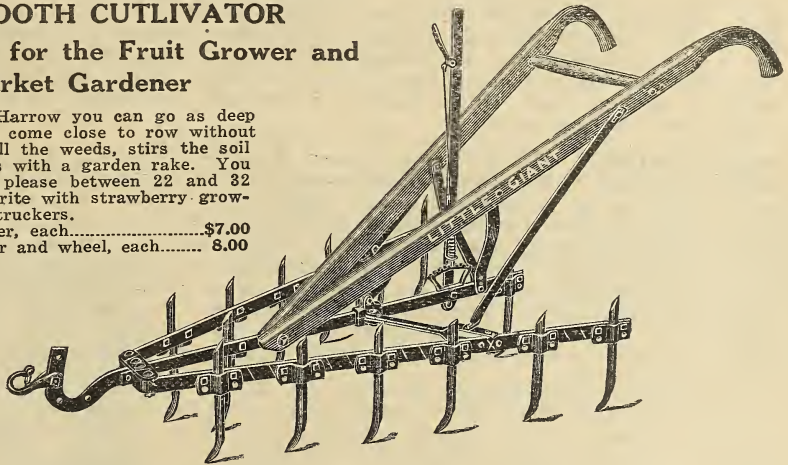
Single Shovel, Wood Beam, each.....\$5.00  
Single Shovel, Iron Beam, each..... 5.00  
Double Shovel, Iron Beam, each..... 6.00  
Double Shovel, Wood Beam, each..... 6.00

## LITTLE GIANT 14-TOOTH HARROW AND 5-TOOTH CUTLIVATOR

Are Necessities for the Fruit Grower and Market Gardener

With the Fourteen-Tooth Harrow you can go as deep or as shallow as you like, come close to row without injuring plants, cuts out all the weeds, stirs the soil and pulverizes it as fine as with a garden rake. You widen and narrow as you please between 22 and 32 inches. It's a special favorite with strawberry growers, market gardeners and truckers.

14-Tooth Harrow, with lever, each.....\$7.00  
14-Tooth Harrow, with lever and wheel, each..... 8.00

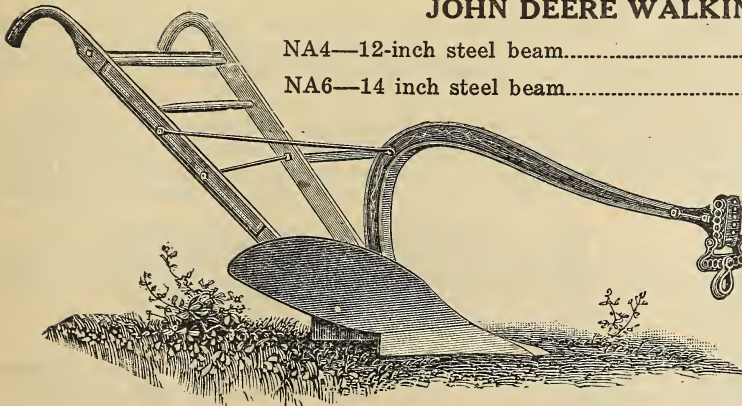


**5-TOOTH CULTIVATOR**—It is so strongly built as to withstand incredible strain, yet it is light and easy to handle. It opens and closes furrows, hoes right up to the plants without danger of injuring, throws dirt to or from the row and throws back from center again.

You can cultivate to any depth desired, and adjust for any width.

5-Tooth Cultivator, with lever, each.....\$7.50  
5-Tooth Cultivator, with lever and wheel, each..... 8.25  
Horse Hoe Attachment, per set 3 Shovels..... 2.50

## JOHN DEERE WALKING PLOWS



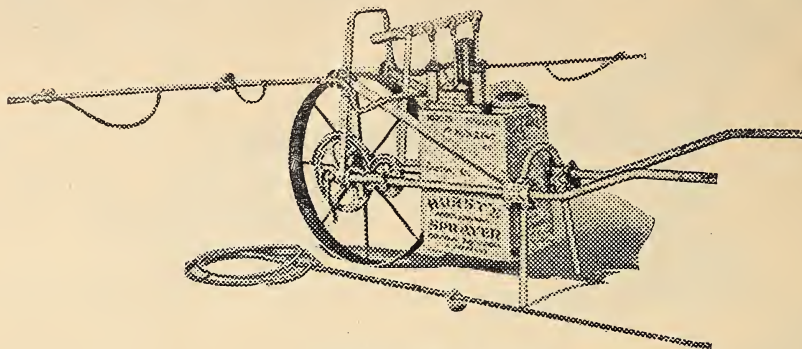
NA4—12-inch steel beam.....\$22.00  
NA6—14 inch steel beam..... 24.50

7-inch Pony Plow, Wood Beam, each.....\$ 6.50  
8-inch Wood Beam, each..... 7.00  
9-inch Wood Beam, each..... 8.50  
10-inch Wood Beam, each..... 11.00  
7-inch Steel Beam, each..... 8.50  
8-inch Steel Beam, each..... 9.00  
9-inch Steel Beam, each.....\$10.00

10-inch Steel Beam, each..... 12.50  
12-inch Steel Beam, each..... 21.00  
14-inch Steel Beam, each..... 23.00  
50-Tooth Harrow, Steel Frame and Lever, U-bar, each ..... 18.00  
60-Tooth Harrow, Steel Frame and Lever, U-bar, each ..... 20.00

## SPRAYERS

### MAN-POWER GARDEN AND ORCHARD SPRAYER



**OUTFIT No. 4**

**FOR ORCHARD, POTATO, TRUCK, STRAWBERRY, ONION, CELERY AND VINEYARD SPRAYING.** The handiest all-around sprayer ever invented. It is so adaptable, easily handled and simple to operate and understand and is so well made that every machine sold in a locality means the sale of many others. There is nothing about this sprayer we can say that would be exaggeration. This machine is without competition as it is the only all-around wheelbarrow sprayer made.

**HOW IT WORKS.** For field and vineyard work this sprayer is unsurpassed. It has two long arms which spray four rows of potatoes or truck at one time. The nozzles can be adjusted to any width up to 10 feet and to any height up to 7 feet. The long arms can be adjusted to any angle for work between grape vines, berry bushes or rows of anything tall. In vineyard spraying the spray arms are set in a vertical position and the spray is directed into the vines from the side. Each spray arm is supplied with a stop cock to shut off the spray and is as adaptable to all situations as the human arms. The nozzles can be turned in any position on the spray arms. Each spray can be thrown 3 feet or more. Two sprays can be concentrated on one row or can be arranged to spray broadcast. With all this adaptability, the spray arms are simple and easy to handle, adjustments being made by means of thumb nuts.

**FOR ORCHARD SPRAYING.** You can change this machine over in five minutes and make it easily adaptable for work in the orchard. You need no tools. The spray arms can be removed by easily detached hand screws, and the hose and rod attached for tree spraying. This outfit makes a very desirable tree sprayer, and many of our customers are using it on large orchards. Instead of wheeling the machine around through the orchard where a great deal of work is to be done, they simply put the machine on a wagon, which is quite an advantage where large trees are to be sprayed, as the operator can then stand on the wagon, which makes it easier to reach the tops of the trees.

**High Pressure.** This machine produces a fine vapor spray which penetrates to every part of the foliage, insuring the very best results.

**The Agitator** is of the paddle type, which operates at the bottom of the tank, moving back and forth at the side of the strainer of the pump. This insures an even distribution of the spraying chemicals which is very essential to successful spraying. The agitator prevents the strainer from clogging and keeps it clean at all times.

**Easy to operate.** As the machine is constructed entirely of steel and brass it is very light, and as most of the weight of the tank is carried by the wheel, it is easy to operate. Nearly everyone who uses this machine finds it much easier to operate than they expected. If you should have hilly ground we can furnish a horse hitch, but most of our ten-gallon machines are sold without it.

**The Tank** on our No. 3 and 4 outfits is of ten-gallon capacity. The tanks are made of heavy galvanized iron and are coated on the inside with an acid-proof enamel, which makes them very durable. The tank is supplied with a drain so that when through spraying the chemicals can be washed out and the machine drained dry.

**OUTFIT No. 4** with 10-gallon heavy galvanized iron tank. Four row spray arms. Orchard attachment has 8-foot rod with drip guard and a 10-foot hose. Shipping weight, 135 lbs.

Price Outfit No. 4—4 Row Field and Orchard Sprayer .....\$37.75

Price Outfit No. 3—4-row, same as above, without Orchard Attachment..... 35.25

A horse hitch can be furnished for either of the above outfits at an extra cost of \$1.50

If larger tank is desired ask for prices.

## THE "HARDIE" HAND SPRAY PUMP

This is the best of all the outside Barrel Pumps. It has brass lined cylinder, brass ball valves, brass valve cages and caps, solid brass plunger and plunger rod and is made just as carefully as if it was intended for a Power Sprayer, yet the simplicity of its construction and our large output enables us to sell it at a price that defies competition.

Remember this is a double acting pump, so that the labor of pumping is divided half on each stroke of the handle. This makes easy work of what otherwise is a hard, tiresome job.

### PRICES SUBJECT TO CHANGE

It is fitted with suction hose, suction strainer, and tested to 200 pounds.

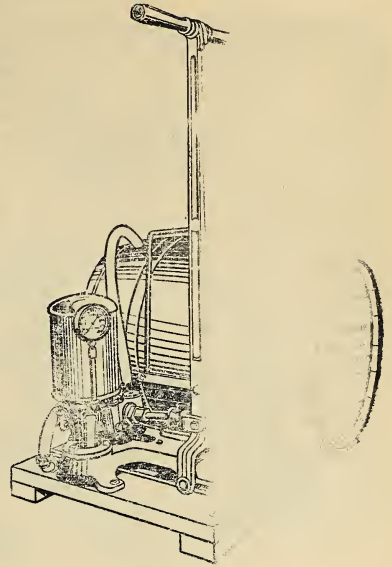
Outfit No. 35—Pump mounted on platform with 50-gallon barrel with mechanical agitation, without pressure gauge..\$45.00

Outfit No. 34—Same as No. 35 with the addition of 15 ft.  $\frac{3}{8}$ -inch hose, 10 ft. bamboo extension rod, leakless stop-cock and angle Vapo nozzle, without pressure gauge..... 55.00

Outfit No. 36—Same as No. 35 with the addition of two 15 ft. lines,  $\frac{3}{8}$ -inch hose, two 10 ft. bamboo extension rods, two leakless stopcocks, two angle Vapo nozzles, without pressure gauge..... 65.00

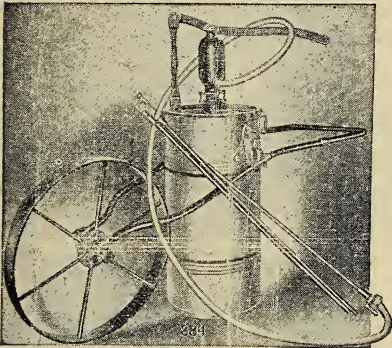
Extra for pressure gauge on any of the above outfits..... 5.00

Agitator only for 50-gallon barrel..... 4.00



## AUTO SPRAY NO. 3

For Handling Whitewash, Cold Water Paint, Insecticides, Fungicides and All Solutions.



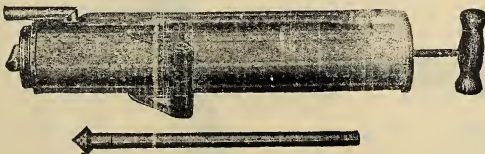
We recommend the Auto-Spray No. 3 for whitewashing buildings containing between 3,000 and 30,000 square feet of floor space, and is constructed in accordance with the requirements of DAIRY FARMERS throughout the world. THE AGITATION IS PERFECT. The Auto-Spray No. 3 is made with 12-gallon reservoir with truck. The truck is not very expensive and it saves considerable labor. This pump is on the principle of a force pump and all of the parts that touch the solution are brass. The plunger is packed with graphite packing that will not dry out. The agitator on this pump is well adapted for mixing whitewash. This is a very important feature of the Auto-Spray No. 3. It is a very new working machine and is capable of maintaining a very high pressure. (Instructions for mixing whitewash with each machine.)

INSTRUCTIONS—Care should be taken after some time to see that machine is thoroughly cleaned. It is not to be run after pump has been cleaned to run a few gallons of water through.

SPECIFICATIONS—The machine is equipped with brass ball valves, heavy seamless brass cylinders, brass casing on the bottom of the pump, complete with brass screen, agitator, heavy galvanized steel or brass reservoir. The pump is equipped with 8-ft.  $\frac{3}{8}$ -in. high pressure hose and angle Vapo extension. Vermorel nozzle. Each, \$25.00.

## DUSTER BROWN

A double acting continuous dust gun for use in dusting small trees, garden truck and for general dusting use. The container and the pump are one cylinder. The manifold on the top incloses both the valves and makes it possible for the operator to blow a steady stream of dust. The container holds approximately one quart and the air jet is so arranged that it acts as an agitator. Price, \$2.00 each.



DUSTER BROWN

## LITTLE GIANT INSECTICIDE DUSTER

Farm, Garden, Tobacco Fields, etc. Thousands Being Used. Machine weighs 6 pounds; furnished with three 16-inch tubes, five nozzles and strap. Weight, cased, about 15 pounds. Capacity, about one quart. Runs entirely by gear. For low growing crops only.

Will green one or two rows of Potatoes, Tomatoes, etc., as fast as you walk. Adjustable to any width of row. Price, \$12.00.



### AUTO SPRAY NO. 1

It is useful and practical for every variety of spraying, such as for trees, shrubbery, vines, disinfectants and small white-washing jobs. Tank is made of heavy brass or galvanized iron. Tank is made of the strongest construction possible and the troublesome safety valve not necessary. Capacity three gallons. The pump is two inches in diameter and of heavy, seamless brass. Can be easily removed and locked in by means of a cam. Absolutely air-tight and no screw connections of any kind. Two or three pumpings will empty the tank under high pressure.

The pump plunger can be removed and reinserted by simply drawing the leather cup into a sleeve. There is no wrinkling or disarranging the cup while inserting into the cylinder.

Each machine fitted with 2 feet of  $\frac{1}{2}$ -inch hose, fine spray nozzle, solid steam cap and either stop-cock or automatic shut-off as ordered.

The automatic shut-off is a great labor and solution saver and draws a cleaning wire through the nozzle at each operation.

The Auto Spray has more special and desirable features than any other pump and at the same time is of the best possible construction.

Auto Spray No. 1B—Brass Tank with Auto Pop.

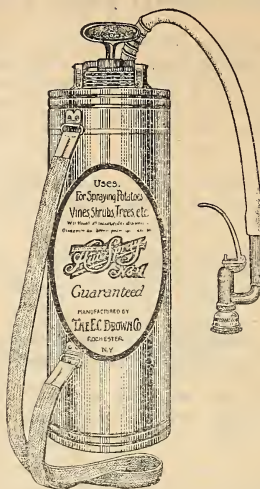
Price .....\$10.00

Auto Spray No. 1D—Galvanized Tank with Auto

Pop. Price ..... 7.50

Brass Elbow, 35c each.

2-ft. Brass Extension Rod, 75c each.



Standard for 20 years.

500,000 in use.

The Favorite with

Florists.

Diameter, 7 inches.

Height, 2 feet.

Capacity, 3 gallons.

Weight, empty, 9 lbs.

Weight, loaded, 36 lbs.

Weight, shipping, 11 lbs.

### AUTO SPRAY NO. 5

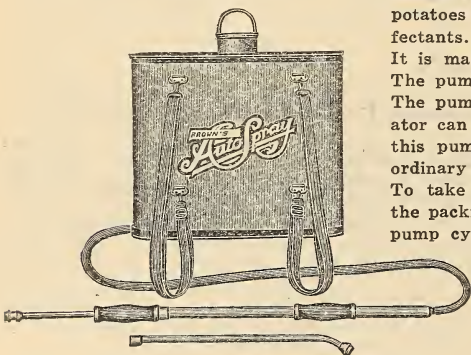
This pump is the ideal all-purpose hand sprayer. Its field is practically unlimited as it may be used for spraying trees, vines, garden truck, potatoes and any field crops, and for handling whitewash and disinfectants.

It is made entirely of brass, doing away with all danger of corrosion. The pump is double acting. This feature makes the spray continuous. The pump cylinder is small in diameter and for that reason the operator can generate a high pressure with little labor. In an actual test this pump generated a pressure of 180 pounds per square inch, with ordinary effort.

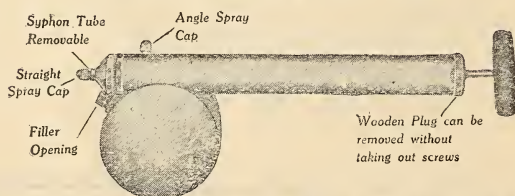
To take the pump completely apart it is only necessary to unscrew the packing gland. The plunger complete can then be pulled out of the pump cylinder.

The nozzles were designed especially for use with this pump. With these nozzles the operator is able to get any variety of spray; or for a long distance for trees; and a fine spray for all work near at hand, such as garden truck, bushes and potatoes. This nozzle will also handle whitewash. The Auto-Spray No. 5 excels all other pumps in durability and simplicity. Because it is double acting it will do the same spraying that other pumps will do, with half the labor.

Pump, \$5.50. Complete with Knapsack, \$9.00.

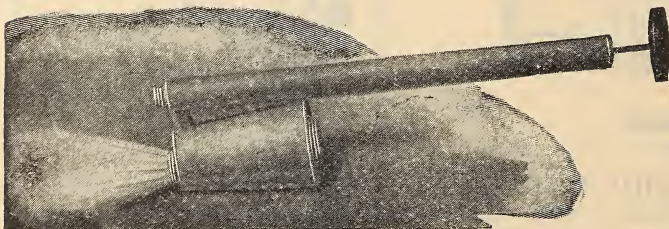


### AUTO SPRAY NO. 25



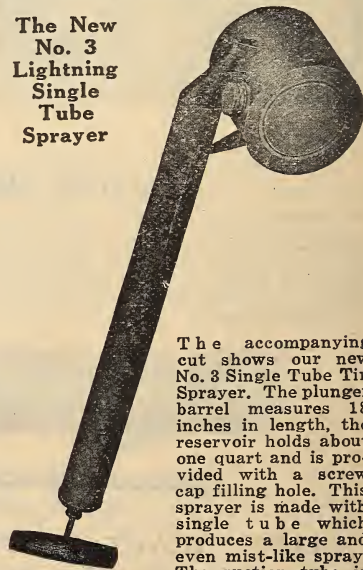
The best small sprayer made. Will handle all insecticides and disinfectants, and operating on both strokes of the plunger, it throws a continuous spray. Two spray caps, one straight and the other at an angle, for spraying under leaves.

Price of Tin Pump with galvanized reservoir, \$1.35. Postage 2 lbs. parcel post extra.



**ADAMS' POWDER SPRAYER**—The only powder sprayer on the market that will spray Paris green, slug shot, etc., satisfactorily. Price 90c.

### The New No. 3 Lightning Single Tube Sprayer



The accompanying cut shows our new No. 3 Single Tube Tin Sprayer. The plunger barrel measures 18 inches in length, the reservoir holds about one quart and is provided with a screw cap filling hole. This sprayer is made with single tube which produces a large and even mist-like spray. The suction tube is protected with a band brace and the plunger is provided with our patent spring expander which prevents the plunger leather from becoming wrinkled or getting out of shape. The sprayer is adapted for all kinds of spraying purposes and is used largely for spraying disinfectants, etc. Price, 60c.

## A MESSAGE ABOUT DUST SPRAYING

### NICO-DUST FILLS A LONG FELT WANT OF THE FLOWER, VEGETABLE AND MELON GROWER

#### NICO-DUST

These preparations are in the form of a dry powder or dust which is applied with a blower, thus affording a material saving in time, labor and expense. The discomforts, as compared with the liquid spraying, are practically none. These products are made of the best materials obtainable, carefully prepared and mixed by special methods according to our proven formulae.

"Nico-Dust" products have made possible the control of a large number of insects which have heretofore been practically impossible to eradicate. It should be clearly understood that "Nico-Dust" is not merely a mechanical mixture of certain ingredients, but a preparation mixed according to a proven formula. Nicotine, its principle, is a very powerful, expensive and volatile substance. Before the development of "Nico-Dust" no one had ever succeeded in putting it into an effective dust form at a reasonable cost. The carrier, or inner ingredient, is by no means unimportant, as it is of a chemical nature which has a very important relation to the effectiveness of the mixture as a whole.

#### "THE APHIS"

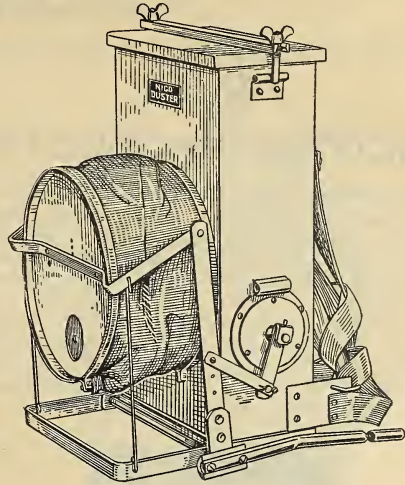
The aphis is a sucking insect. It neither chews nor eats the plant or leaf, but passes its sucking mouth through the outer covering of the leaf or stem. It sucks the juice from the inner portion, hence it cannot be poisoned but must be destroyed by contact. Common with other insects, aphis have no lungs. They breathe through spiracle, or air passages, located along their sides. The insecticide agent must be of sufficient lightness and fineness to float freely through the air. "Nico-Dust" has this quality. It passes through the spiracles and attacks the insect at its weakest point, the internal air tubes, at the same time choking the spiracles. This causes almost instant death. Therefore, common sense tells us that "Nico-Dust" is the agent to use to destroy the aphis. The one remaining question is "HOW TO APPLY PROPERLY."

#### GENERAL DIRECTIONS FOR APPLYING

Do not wait until the pests become abundant because by that time great damage has been done. Get a good dusting machine and dust the plants thoroughly. Apply direct to infected portions of the plants. "Nico-Dust" products are most powerful in warm, bright sunshine and should be applied when the air is still or disturbed only by a slight breeze. Dusting in the early morning gives the best results.

#### THE NICO-DUSTER

The NICO-DUST SPRAYER is a one-man machine. It is small in size and cost, but big in action. It is easy to operate and capable of accomplishing an enormous amount of work. It can be filled and put into action in a few



No. 3 NICO-DUSTER

moments, always dependable and ready at critical times.

Light in weight, convenient to carry. An even flow of dust is assured. Flow can be regulated as desired. Gives an ample dust cloud. Has a strong air force. Easy to operate. Will not choke or clog. Well constructed. Peerless in its performance. Quality maintained throughout. It is possible for one man to cover five acres per day.

To get the best results work at a little distance from the tree, vine or plant, thereby causing the dust to spread over a greater area. Swing the discharge pipe upwards or sideways. This serves to spread the dust still more and cover a greater area.

Keep the machine well oiled. Adjust the straps to fit you. The amount of dust discharged is governed by the position of the link connected to the handle. To secure more dust raise the feed, for less, lower. Be sure that the links are properly replaced.

Price, No. 3, each.....\$21.00

#### NICO-DUST 6%

For aphis on lettuce, cabbage, cauliflower, flowers, shrubs and general florists' use.

5-lb. package .....	\$ 2.00
25-lb. steel drum.....	8.00
100-lb. steel drum.....	25.00

For cabbage use about 12 lbs. per acre.

#### NICO-DUST 10%

For canteloupe, watermelon, cucumber and squash. Experiments show a killing effect of nearly 100% almost instantly.

5-lb. package.....	\$ 3.00
25-lb. steel drum.....	10.00
100-lb. steel drum.....	35.00

For vine vegetables use about 12 to 14 lbs. per acre.

**WRITE US FOR EXPERIMENT STATION REPORTS AND GROWERS' TESTIMONIALS**

## INSECTICIDES AND FUMIGATING MATERIALS

Insecticides and Fungicides marked (\*) can be sent by Parcel Post at Purchaser's expense. Consult your local Post Office for rate from Kansas City.  
Sorts not marked can not be sent by mail.

# Hall's

## NICOTINE PRODUCTS

Hall's Nicotine Products are scientifically prepared and carefully standardized to insure uniform, dependable products. Nicotine, which is the principal alkaloid in tobacco, is the active ingredient in all of these products. The nicotine is extracted from tobacco by-products and highly concentrated for convenience in handling, and to save transportation charges. When properly diluted and used according to directions, it is the most effective agent against the sucking insects.



### HALLS NICOTINE FUMIGATOR FOR GREENHOUSES

A simple and effective preparation for fumigating greenhouses, for plant-lice and thrips. It is a specially prepared tobacco powder, which has been treated to insure proper burning qualities, and which is saturated with pure Nicotine.

**A real smudge or punk.**

**Easy to use.**

Simply fill the enclosed measuring dipper with the fumigator, press it in gently and place on an inverted, empty tin can. Set the can on the floor and light the cone at the top. It will burn evenly, without flaming, and will be consumed in about five minutes, vaporizing the Nicotine. An ordinary greenhouse, 20 by 100 feet, will require three of the above charges—equally spaced—for strong fumigation, or one (1) measureful for each 7,000 cubic feet of space.

Before fumigating a greenhouse see that all ventilators are tightly closed and that the plants are well watered, so that the air will be moist. Fumigate in the evening, if possible, when little or no wind is blowing, and allow the vapors to remain in the house all night.

Nicotine in concentrated form is a deadly poison, and as this fumigator is impregnated with concentrated Nicotine, it should be handled with due care.

### PACKAGES

Hall's Nicotine Sulphate 40% SOLUTION	
10 lb. tins.....	\$15.00
2 lb. tins.....	3.75
½ lb. tins.....	1.25

Hall's Nicotine Solution 40% Free Nicotine	
8 lb. tins.....	\$15.75
2 lb. tins.....	4.50
½ lb. tins.....	1.50
1 oz. bottle.....	.35

*Hall's Nicotine Fumigator 12½ % Nicotine	
2½ lb. tins.....	\$2.50
10 lb. tins.....	8.50

**Directions for the use of Hall Tobacco Chemical Co.'s Nicotine Products on Each Package.**

**\*NICO-FUME PAPER**—Sheets of paper treated with high-strength refined nicotine solution. Especially suitable for fumigation of cut flowers, to destroy aphids and thrips. Very convenient. Eight to ten sheets fumigate 16,000 cubic feet of space.

**NICO-FUME LIQUID**—A highly refined solution of free nicotine—exceptionally pure. Guaranteed 40% nicotine. Used by florists for spraying; also for fumigating on hot steam pipes, pans, etc. Destroys aphids and thrips, etc.

### PRICES

"Nico-Fume" Paper		"Nico-Fume" Liquid	
24 Sheets.....	\$1.35	¼-lb. Tin.....	\$0.75
144 Sheets.....	6.00	1-lb. Tin.....	2.35
288 Sheets.....	11.00	4-lb. Tin.....	8.50
		8-lb. Tin.....	16.50

**BLACK LEAF 40**—There are many types of insects that cannot be controlled with a poison such as Paris green or arsenate of lead, but must be killed by what is known as "contact" insecticides. The most common insect of this type is the plant louse or aphid. There are many forms of lice attacking different fruits and vegetables and flowers. They are practically all controlled, however, by the use of "contact" insecticides, such as this, which is about 40 per cent Nicotine and will be found very effective in controlling all types of plant lice. It is very powerful and one gallon will make from eight hundred to one thousand gallons of spray. Recommended for outdoor uses and for house plants indoors.

### PRICES—BLACK LEAF 40

1 oz. Makes 6 gallons spray.....	\$0.35
½ lb. Makes 40 to 120 gallons spray.....	1.25
2 lb. Makes 160 to 500 gallons spray.....	3.75
10 lb. Makes 800 to 2,500 gallons spray.....	15.50

### DRUMMOND'S WHITE FLY LIQUID

**An Insecticide for Spraying.** Will actually destroy White Fly on Pelargoniums, Fuchsias, etc. Mealy Bugs on Coleus, Vincas, etc., without leaf injury. Used successfully by thousands of florists in U. S. and Canada. ½-pt. can, \$1.50; 1-pt. can, \$3.00; 1-qt. can, \$5.00; 2-qt. can, \$9.00; gal. can, \$16.00. Gallon lots, express paid.

## INSECTICIDES AND FUNGICIDES

### Insure Your Garden and Orchard Against Bugs

All prices on this page are subject to change. Items marked (\*) can be mailed. We have found the preparations listed on this page the very best. Directions for use are on each package. To protect your trees, flowers, shrubbery and vegetables from insects and blight, it is necessary to spray them. Ask for prices on larger quantities not quoted.

### ARSENATE OF LEAD (Paste)

Used largely with Bordeaux Mixture for spraying potatoes and fruit trees. Sticks longer and no danger of burning the foliage as with paris green. Lb., 35c; 5 lbs., \$1.25; 12½ lbs., \$2.75; 25 lbs., \$4.75; 50 lbs., \$8.50, not prepaid.

**ARSENATE OF LEAD (Dry Powder Form)**—Being the more popular form of this destroyer, owing to its economical ways of being applied. Can be used either as dusting powder or diluted in water.) Dusting directions, 1 to 2 lbs. per acre. Diluted in water, 1 lb. to 50 gals. Price, ½ lb., 30c; 1 lb., 50c; 5 lbs., \$2.00; 10 lbs., \$3.50; 25 lbs., \$7.00.

### PARIS GREEN

The Old Reliable and strong effective poison for Potato Bugs, Tobacco and other leaf-eating insects. Can be applied either dry or in a solution of water. The strongest and brightest Paris Green on the market. For the convenience of the consumer, we put Paris Green in—

¼ lb. Carton.....	\$0.25
½ lb. Carton.....	.40
1 lb. Carton.....	.60
5 lb. Cans.....	2.50

### \*"SURE NOXEM"

#### Dry Powdered Form

**Insecticide—To Most Leaf-Eating Insects**  
One of the best vegetable insecticides in use. Specially recommended for destroying worms and insects.

#### What To Use It On

Cabbage, Cauliflower, Tomato Plants, Cucumber Vines, Melon Vines, Currant Bushes, Gooseberry Bushes, Vegetables and Flowers of all kinds attacked by Leaf-eating Insects.

1 lb. Sifter Top Cartons.....	\$0.25
5 lb. Packages.....	.55
10 lb. Boxes.....	1.00

### BORDEAUX MIXTURE

#### DIRECTIONS FOR USE

**To Control Scale and Blight**—For all Fungous diseases. The best Fungicide for curing or preventing Black Rot, Mildew, Blight, Leaf Curl, Scab, or other Fungous diseases on fruit and plants, if used dry.

For Potatoes, dust without reduction, 4 to 5 pounds per acre (according to size of vine.)

For Fruit Trees, dust after reducing one pound of Dry Bordeaux with 20 lbs. of lime dust.

For Spray—To make the equivalent of 4-4-50 mixture, use eight pounds of Dry Bordeaux Mixture to 50 gallons of water. For 5-5-50 mixture, use 10 pounds to fifty gallons of water. 1 lb., 50c; 5 lbs., \$2.00.

### KEROSENE EMULSION

**For Sucking Insects**—A safe and sure remedy for squash-bugs, plant and bark-lice, San Jose scale, caterpillars, rose-bugs, green-fly, melon and pea louse, and all sucking insects. It is in concentrated form—add 25 to 50 gallons of water to one gallon of emulsion and it is ready for use. Spray before the blossom buds open and again after the blossoms fall. The second spraying should have Paris Green mixed with it to kill leaf-life aphides and insects. Qt., 60c; gallon, \$1.60; 5 gallons, \$3.00.

### LIME SULPHUR SOLUTION

For all scale insects on trees and shrubs, also of benefit for such fungus bark diseases as can be treated in winter. Must be diluted and applied with a spray pump while the trees are dormant, after the leaves have fallen in fall and before the buds swell in spring. It can be used quite strong during mid-winter. One gallon to 10 of water. Price, quart can, 40c; ½ gallon, 60c; one gallon, \$1.00; 50-gallon bbl., \$14.50.

**LIME SULPHUR (Dry Powdered)**—The most efficient form of this highly celebrated spraying compound. Dissolves instantly in cold or hot water. Directions: Dissolve at rate of 10 lbs. to 50 gals. water. 1 lb., 35c; 5 lbs., \$1.50; 10 lbs., \$2.50; 25 lbs., \$4.75; 100 lbs., \$14.00.

### \*HELLEBORE

\*For the destruction of slugs, worms, caterpillars, etc. Loses its strength when exposed to the air a few days, making it safe to use when the vegetables or fruit are about ripe. ½ lb., 35c; 1 lb., 60c, not prepaid.

\*TOBACCO DUST—1 lb., 15c; 100 lbs., \$5.00.

### \*BUG DEATH SAVES YOUR CROPS



The most deadly insecticide—yet harmless to plants. Contains no Paris Green or Arsenic—does not burn, prevents blight. Has saved millions of dollars for farmers in the past 15 years. Equally effective on Potatoes, Squash, Cucumbers, Melons, Vines and Shrubbery.

### PREVENTS BLIGHT ON ALL CROPS

Don't experiment—buy right this time—get "Bug Death." Easily applied as dry powder with our "Dickey Duster" (price 35c)—or for spraying mixture. Also effective on shade and fruit trees.

Pound, 25c; 3 lbs., 60c; 5 lbs., 85c; 12½ lbs., \$2.00; 100 lbs., \$12.00. Booklet with full directions sent with every order.



### \*HAMMOND'S SLUG SHOT

It kills potato bugs in all stages of growth, except in the eggs. It kills the black fleas on cabbages, turnips, beets, radishes, and egg plants. Apply by dusting over the plants. It kills the cabbage worm and also the currant and gooseberry worm, the aphid or green fly on roses and other flowers. Has prevented the ravages of the curculio and canker worm on fruit trees, has likewise been used around beans, melons, squashes, etc., with great success. Keeps the striped bug from all vine crops.

**FOR SLUGS ON ROSES**—Slug Shot is a sure killer. Apply with dust sprayer after a dew or rain, on both under and upper side of leaf.

Price per 5 lbs., 60c; 25 lbs., \$3.00; 50 lbs., \$5.50; 100 lbs., \$10.00. Cartons with perforated tops, 1 lb. Slug Shot in each, 25c; postage extra.

\*SULPHUR—For making Lime-Sulphur Spray, for mildew and plant mites. By mail postpaid, 5 lbs., 80c; 10 lbs., \$1.30. By express, not prepaid, 5 lbs., 60c; 10 lbs., 90c; 50 lbs., \$3.50.

## TREE TANGLEFOOT

It is easily applied and is the most effective and economical protection for fruit, shade and ornamental trees against all crawling insects.

On matured fruit trees and all shade trees it is applied directly to tree trunks, on young fruit trees over strips of Manila paper.

One pound makes about 10 lineal feet of band. One application remains sticky three months and longer—outlasting 10 to 20 times any other known substance. Remains effective, rain or shine. Won't soften, won't run or melt, yet always elastic, expanding with growth of tree. No mixing required; use exactly as prepared. Applied with a wooden paddle. Will not injure trees.

Endorsed by prominent park and cemetery superintendents, foresters and horticulturists.

### PRICE

1 lb. packages.....	\$ 0.50 each
5 lb. packages.....	2.25 each
10 lb. packages.....	4.25 each
20 lb. packages.....	8.00 each
25 lb. packages.....	9.75 each

The 1, 5, 10 and 20 lb. sizes are lithographed cans—the 25 lb size is a wooden pail.

## FERTILIZERS

For Lawn, Garden, Field and House Plants

A Necessity to All Growing Plants



### SHEEP MANURE

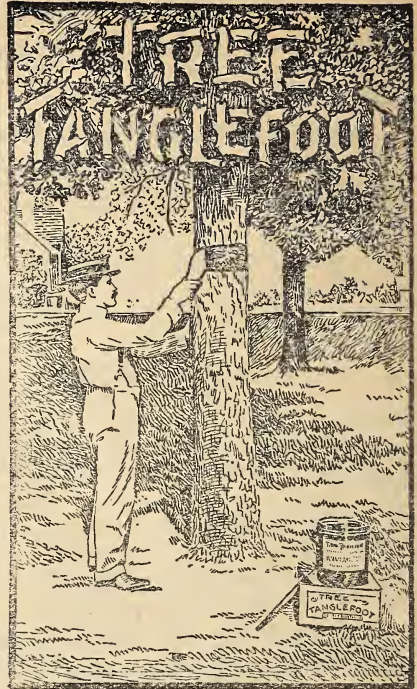
Analysis: Ammonia, 2.50 per cent; Phosphoric Acid, 1.50 per cent; Potash, 1.50 per cent.

This is a splendid, complete fertilizer containing the necessary plant foods and is also rich in humus, or vegetable matter. It is excellent for general use either alone or in combination with other special purpose fertilizers. Having been kiln dried, there is little danger from weed seeds. It can be used freely as it is not likely to burn anything. Part of it is very soluble so its effects are usually apparent soon after the application and for a long time afterwards. It is carefully selected, dried, pulverized and screened.

**FOR LAWNS**—It should be applied by sprinkling lightly over the grass, in the Spring and up to July 15th. It requires no raking in. The color is not conspicuous and there is no objectionable odor. This will nourish the grass, act as a mulch, and tend to prevent the lawn from burning in hot weather. Use 50 lbs. per 1000 square feet or 25 lbs. with 25 lbs. of bone meal. See note on bone meal.

**FOR THE GARDEN**—After the crop has been harvested in the Fall, the garden should be given a good coating of Sheep Manure. In the Spring put on another light coat and turn it under, or sow lightly in the rows.

**FOR TRUCK GARDENS**—Sheep Manure is a good fertilizer for the truck garden, producing better and earlier crops of onions, celery and other vegetables.



Price, 5 lbs., 35c; 10 lbs., 60c; 25 lbs., 90c; 50 lbs., \$1.50; 100 lbs., \$2.25; 1000 lbs., \$20.00; 2000 lbs., \$35.00.

## ELEMENTS OF FERTILITY

**NITROGEN**—Its first function is to produce the green rank growth of the plant. Nitrogen makes greener and quicker growth, more succulent and nourishing food. In fruits, after serving first in making leaf growth, Nitrogen is chiefly needed in forming the seed without which fruit would not develop. When properly supplied with the necessary Phosphoric Acid and Potash, about 75 per cent of the Nitrogen goes into the seed and grain.

**PHOSPHORIC ACID** gives strength to the young plant in helping to expand its root growth and absorb the other necessary elements of plant food. It hastens and increases flowering and forces earlier maturity. As the crop gradually ripens from 70 to 90 per cent of the Phosphoric Acid consumed by the plant is transferred to the seed.

**POTASH**—Its chief function is to form the cellular fibers, straw and woody growth of plants. It aids in producing sap, starch formation of grains, and juiciness and sweetness of fruits.

## NITRATE OF SODA

Quick in action; used for the nitrogen it contains. It creates rapid growth, is odorless and entirely soluble. It should be applied only when the plants are above ground, usually in combination with other chemical fertilizers. Nitrate of Soda is the best form in which nitrogen can be restored to the soil. It is of special value for early crops such as Peas, Corn, Beets, Cabbage, etc., when rapid maturity is essential, and of great benefit to hay and forage crops. Nitrate of Soda is a great stimulant for the production of Sugar Beets, Potatoes and Sorghum, also small fruits.

Use as a top dressing at the rate of 100 lbs. per acre on the following vegetables when plants are well established, viz.: Beet, Cabbage, Cauliflower, Cucumber, Celery, Egg Plant, Lettuce, Spinach, and Onion.

For Asparagus use at the rate of 250 lbs. per acre as a top dressing after the first shoots make their appearance.

For Strawberries use 100 lbs. per acre as a top dressing after the plants have blossomed.

For Grass and Grain use at the rate of 100 lbs. to 200 lbs. per acre when growth is well established.

For the home garden, apply in soluble form, using one ounce to 2 gallons of water.

Nitrate of Soda should be applied directly to the soil and should not be allowed to touch the foliage.

1 lb., 15c; 5 lbs., 60c; 10 lbs., \$1.00; 25 lbs., \$1.75; 50 lbs., \$3.25; 100 lbs., \$6.00.

FERTILIZERS—Cont'd.

# HIGH GRADE ACID PHOSPHATE

**GUARANTEED ANALYSIS**—Available Phosphoric acid 16.00 per cent.

Valuable for Winter Wheat, Rye, Barley, Clover, Alfalfa, Field Beans, Field Peas and all crops needing available phosphoric acid. Should be sown broadcast at a rate not to exceed 500 lbs. to the acre. Acid phosphate added to stall manure is the most effective fertilizer known. While greater crops may be grown with large amounts of commercial fertilizers, the greatest economical returns and even yields come from phosphated manure. This new fertilizer is made by simply adding about 40 pounds of acid phosphate to a load of manure when it is removed from the stable or barn. **Bag, 125 lbs., \$2.50; ton, \$32.00.**

## PHOSPHATED MANURE

### ANALYSIS

Nitrogen.....	82
Equals Ammonia.....	1.00
Phosphoric Acid Available.....	9.00
Potash.....	1.00

### WHAT IS PHOSPHATED MANURE?

**WIZARD BRAND PHOSPHORATED MANURE** is a combination of high quality Acid Phosphate and specially prepared Stock Yards Manures dried and sterilized by a direct heat process, screened and uniformly ground or pulverized. There is not a pound of filler or make weight stuff in Wizard Brand. It drills nicely and makes a big crop because it's a common-sense, honest fertilizer that gives the soil what it needs to make things grow.

The best Stock Yard manures are reduced by our special process approximately 10 tons to 1. This Concentrated Manure is then mixed with high quality Phosphate in such proportion that there shall be the equivalent of 5½ tons of ordinary barnyard manure (minus the water) in every ton of Wizard Brand. This Concentrated Phosphated Manure is in such shape as will permit application direct to the plants where every atom is used to best advantage.

Phosphated Manure is ten times stronger than ordinary barnyard manure and will produce the highest quality of grain, cotton, fruit or vegetables and leave your soil in better shape for the crops to come.

200 to 300 lbs. per acre for corn, wheat and oats, broadcasted and harrowed in before planting. 400 lbs. per acre on vegetables and melons give the maximum results.

The fertilizer should not come in direct contact with the seed and should be well mixed with soil by the use of the harrow or cultivator before planting.

100 lb. bags.....	\$ 2.25
500 lbs. for.....	10.00
1000 lbs. for.....	18.00
2000 lbs. for.....	34.00

## FERTILIZERS—Cont'd.

## STEAMED BONE MEAL

**ANALYSIS**—Nitrogen, 3.75 per cent; equal to Ammonia, 4.50 per cent; Phosphoric Acid (from bone), 23.00 per cent

This is finely ground and of first quality; it starts to decompose quickly and continues for a long period its improvement in the soil fertility; it is less likely than other fertilizers to leach or waste. With bone there is no danger of burning the plants. Use 3 to 5 pounds of bone meal for each tree and vine when setting it out, working it around the roots.

**LAWNS**—For new lawns, use 500 lbs. of bone meal with a ton of sheep manure per acre. This should be plowed under or spaded in, several weeks before sowing the seed. Old lawns, top dress very early in Spring with sheep manure and bone meal mixture, at 2200 lbs. per acre or 50 lbs. per 1000 sq. ft.

**FIELD AND GARDEN CROPS**— $\frac{3}{4}$  to 1 ton broadcasted and harrowed in. This is especially desirable for use with sheep manure, which is rich in nitrogen.

**PERMANENT PASTURES AND MEADOWS**—Use  $\frac{1}{2}$  to 1 ton per acre before growth starts in the Spring.

**ROSES AND FLOWERING PLANTS**—Ground bone is one of the most useful forms from which to furnish both Nitrogen and Phosphoric Acid in slowly available forms. A good mixture for both the field and prepared soils is four parts of ground bone and one of muriate of potash, applied at the rate of four pounds per square rod, and preferably worked into the soil previous to setting the plants; a second application may be made in the Fall at the same rate. For pot plants use one part one meal to 50 of soil. 100 lbs., \$3.50; 500 lbs., \$15.00.

## 2-8-2 GARDEN AND LAWN FERTILIZER

**ANALYSIS**—Ammonia, 2 per cent; available Phosphoric Acid, 8 per cent; Potash, 2 per cent.

2-8-2 is the result of careful study, experiments and experiences. It contains in the right proportion, a concentration of the elements which nourish and feed grass into luxuriant growth. It produces a rich, green color, and insures a permanent evenness over the whole surface of your lawn. It is not unpleasant to handle, being odorless, and as it is dry and fine it is easily put on. Two or three applications in a season, at the rate of a pound to every hundred square feet, will keep your grass in flourishing condition—perfectly healthy and able to stand any amount of sun if watered.

**WHEN AND HOW TO PUT IT ON YOUR LAWN**—The first application should be in the early Spring—just as soon as the frost is out of the ground. Scatter it by hand carefully and evenly. Use from 10 to 15 lbs. on every 1000 sq. ft. or 400 to 500 lbs. per acre, and if it can be put on just before a rain, so much the better. If unable to do this, wet it down with a hose as soon as possible after applying. For new lawns, 282 Garden and Lawn Fertilizer can be used to good advantage either alone, using 1000 pounds per acre, or in connection with sheep or cattle manure, working it into the soil before sowing the seed.

**FOR VEGETABLES AND FLOWERS**—Apply in early Spring at the rate of 15 lbs. per 1000 square feet, forking it in well. For late use, sprinkle it carefully around the plants and between the rows. Do not let it touch the plant roots. A teaspoonful or so stirred in the soil about the roots of each plant two or three times during the season will give you astonishing results. Always water plants thoroughly after fertilizing.

**FOR HOUSE PLANTS**—A teaspoonful of 282 Fertilizer dissolved in a quart of water and this solution poured around the roots of house plants will greatly invigorate them. Stir solution while pouring so as to keep it well mixed, and apply as often as the plants seem to need it—say every week or ten days, or until they are as healthy as you wish. 125 lbs., \$4.00; 500 lbs., sufficient for one acre, \$15.00.

**LIME HYDRATED (For Lawns)**—Used to neutralize the soil if sour or acid, especially where the top soil is a heavy clay. On the majority of lawns a 100 lb. sack will cover approximately 800 square feet. On lawns with a very heavy clay top soil 100 lbs. to every 600 square feet can be applied. The same conditions rule in treating the vegetable garden. Land thus limed retains its sweetness for a period of two to three years. Price, put up in 50 lb. bags, \$1.25; 100 lbs. for \$2.15; 500 lbs. for \$10.00.

**BLOOD (Dried)**—Excellent for indoor culture of flowering plants, such as carnations, roses, etc. Its chief element is nitrogen. 100 lbs., \$6.00.

**LAND PLASTER**—Land Plaster has the property of combining with the potash in the soil and making it available as plant food. It should be mixed with all stable and barnyard manures, as it combines with the ammonia that might otherwise be lost, and "fixes" it in the form of sulphate of ammonia, in which form it is taken up by the plant as needed. Bag of 100 lbs., \$1.75; 500 lb. lots at \$1.40 per 100.

## "RED SNAPPER" PLANT FOOD

## MAKES PLANTS GROW AND BLOSSOM

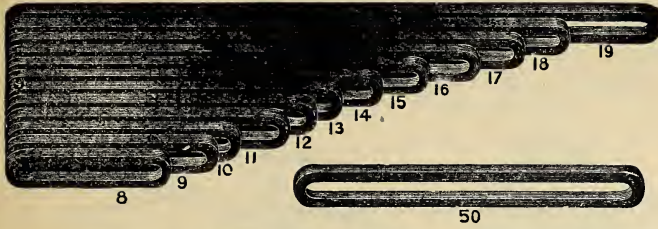
This Plant Food, which is for flowering plants, vines, shrubs, etc., as well as for House Plants, gives plants a quick, sturdy, healthy growth. The blossoms come out more profusely; they are larger in size and richer in coloring. This Plant Food is an organic fertilizer very rich in Plant Food. It is made from the head bones and nitrogenous cartilage of Red Snapper fish, dried, sterilized and ground into the finest meal. It is thoroughly clean and sanitary and can be used in the finest homes and conservatories. We enclose in each box a small package of so-called Plant Tonic which is used to sweeten sour or dead soil and put it in better condition to assimilate the Plant Food.

**FOR HUNGRY PLANTS**—Use "Red-Snapper" Plant Food.

**FOR SICKLY PLANTS**—Use "Red-Snapper" Tonic.

4 lb. packages with 8 ozs. Tonic, \$1.00; 12 $\frac{1}{2}$  lbs., \$1.75.

## FLORISTS' AND MISCELLANEOUS SUPPLIES



### RUBBER BANDS

Cheaper and far more handy than twine for Asparagus. No. 8 about 7,000 in lb. Right size for Asparagus—1 lb., \$1.35.

**COTTON TWINE**—4-ply, in balls, packed, 5 lbs. in a package. For tying vegetables. Per 5-lb. pkg., each \$2.50.

**JUTE TWINE**—For sewing sacks; also used for tying grape vines. Per 5-ft. skein, 35c each.

**BLUE GRASS STRIPPERS**—Hand strippers that do the work successfully and are just the thing where there is not enough blue grass to warrant the expense of using a power machine. Each, \$2.50.

### BASKET MAKING MATERIAL

**RAFFIA**—The inner skin of a palm found in Madagascar. Raffia is very strong and tough, but soft and flexible, which fact makes it the only practical article for weaving into fancy baskets, boxes and mats. In its natural color it is a light straw. The natural Raffia is also used for tying up plants in field or greenhouse. 1 lb., 35c.



**GARDEN TROWEL**—Forged Steel—Made of one piece of steel; they are strong and stout. For market gardeners' use they are the very best trowels. Price, 5-inch, 60c; 7-inch, 70c.

### DIBBERS OR DIBBLES



All iron, hollow light, of the proper size, shape and "hang" for transplanting celery, cabbage, tobacco, etc.; polished blade, japanned handle; length, 9 3/4 inches; each, 60c.

### ASPARAGUS KNIVES

These are forged from 7/16 round steel, well hardened and tempered to stand rough usage. Finished with blue enamel, front part of blade nicely polished. Used also as a weeder and dandelion digger. Each, 60c.

### LEG BANDS

**CHAMPION**—Made of aluminum, adjustable to fit any fowl; in two sizes, 3-inch and 4-inch.

12 for.....	15c
25 for.....	30c
50 for.....	50c
100 for.....	Postpaid, 90c



LEG BANDS

### CANE STAKES

Cane Stakes, 6 to 8 ft., in 1,000 lots.....	\$12.50 per 1,000
Japanese Bamboo Stakes, 1 1/2 ft.....	5.00 per 1,000
Painted Green	
Japanese Bamboo Stakes, 2 ft.....	6.50 per 1,000
Painted Green	
Japanese Bamboo Stakes, 3 ft.....	8.50 per 1,000
Painted Green	

**TREE WRAPPERS**—Made of wood; used for protecting young fruit trees; come 100 in a bundle. Per 100, \$1.15; per 1,000, \$10.00.

**REDDICK MOLE TRAP**—If you are bothered with moles you should purchase one of these traps. It is undoubtedly the best trap made and no mole can pass under it and live. Each, by express, \$1.00. Wt., 2 lbs.50c.

## NEPONSET WATERPROOF PAPER FLOWER POTS



These pots are nested and packed in cases of 1,000 each except 4, 5, and 6 inch sizes, which are put up in cases of 500 each. Six at dozen rate, 50 at 100 rate.

	Doz.	100	1000	Packed for Shipment in Cases, Weight
2 1/4 inch.....	\$0.10	\$0.65	\$ 5.00	1,000 Pots, 12 lbs.
2 1/2 inch.....	.10	.75	5.75	1,000 Pots, 16 lbs.
3 inch.....	.15	1.00	8.00	1,000 Pots, 24 lbs.
3 1/2 inch.....	.20	1.25	11.00	1,000 Pots, 34 lbs.
4 inch.....	.20	1.50	12.50	500 Pots, 23 lbs.
5 inch.....	.35	2.25	20.00	500 Pots, 37 lbs.
6 inch.....	.45	3.00	25.00	500 Pots, 51 lbs.

### EXCELSIOR FINGER WEEDER



The claw fingers are useful for loosening and pulverizing the soil. Each, 20c.

### THREE-CORNERED ONION WEEDER



A popular tool for weeding among onions, and other rowed crops. Each, 50c.

### HAZELTINE HAND WEEDER



In general use. Blade solid steel, tempered, 7/8 inch wide and 1/8 inch thick, sharpened on all edges. Each,

## FLORISTS' AND MISCELLANEOUS SUPPLIES—Cont'd

### BULL DOG PAPER CLIP



Registered U. S. Patent Office

The Quickest and Best Package Fastening Device



**THE FLORISTS' RELIABLE CLIP**—Grips from both sides—never becomes unfastened. Adds tone and security to package; does away with use of twine or pins. Saves its cost in time and labor many times over. Packed in boxes of 1,000, \$1.25, Postpaid.

### LABELS, POT AND TREE

5% Discount on 10,000 Lots

	Plain	Pntd.
Pot Labels—Wooden, 5/8-inch wide.	1,000	1,000
4 inch.....	\$1.40	\$ 1.70
5 inch.....	1.90	2.25
6 inch.....	2.25	2.60
10 inch.....	7.25	8.50
12 inch.....	8.75	10.00
Garden Stakes—Wooden, 7/8-inch wide.	100	1,000
8 inch.....	\$1.00	\$ 9.00
10 inch.....	1.50	12.00
12 inch.....	2.00	15.00

Tree Labels—Wooden, 3 1/2 inches, notched and copper-wired, per 1,000, \$2.25.

### THE "LITTLE WONDER" HEDGE TRIMMER



ONE HUNDRED FEET IN TWENTY MINUTES

Just think of it. Any untrained person can easily do one hundred running feet of hedge, no matter whether eighteen inches high or three feet high, in no longer than twenty minutes including the three cuts, one for the top and one for each side. Is this not a wonder, and is the machine not truly named? It would take four hours to do this by hand.

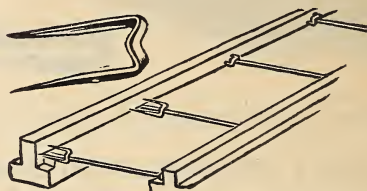
Model B Machine cuts 40 inches wide, and because of its lightness and ease with which it operates, practically makes it a universal machine for all size hedges for when the top of a hedge is too wide for the cutting bar, a second cut may be made to finish. Weight of machine, 12 lbs. Each machine packed in wooden case; shipping weight, 25 pounds. May be sent by parcel post. Price, \$30.00.

Full and complete instructions (so simple that a child can assemble) come with each machine.

### PEERLESS GLAZING POINTS

Galvanized

ONCE USED, ALWAYS USED!



The Peerless Glazing Point is the only perfect Point known. The latest improvement is that both points are beveled on top and will hug close to glass when driven. Two sizes: No. 2, for medium double thick glass; No. 2 1/2, for large double thick and skylight glass. Price, per 1,000, 80c; postpaid, 85c; 5,000 \$3.50, postpaid.



**GLAZING POINTS, Zinc City**—These Points can be driven right or left on any size or thickness of glass. The offset head makes them easy to drive or extract, and absolutely prevents glass from slipping. Made from pure zinc. Put up in one-pound packages, 3/4-inch 1,800 to lb.; 7/8-inch, 1,200 to lb. Lb., 50c; 10 lbs., \$5.00, postpaid.

### RUBBER PUTTY BULB

The best for applying liquid putty and white lead when glazing and repairing sash and greenhouses. Price, \$1.35. (Mail weight, 1 lb.)

### RUBBER HOSE

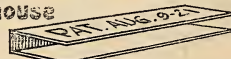


**REELO RUBBER HOSE**—This is the highest grade of moulded rubber hose, being made entirely from new para rubber, and will stand any city water pressure. It is non-kinkable and will be more serviceable to the florist and home owner than other hose which is sold at higher prices. This is sold in 25, 50 and 100 foot lengths; is fitted with the latest new water tight couplings without extra charge.

1/2 inch, per foot.....	16c
3/8 inch, per foot.....	17c
3/4 inch, per foot.....	19c
25 ft. lengths, 1c per foot more.	

**HOSE MENDERS (Perfect Clincher)**—Has brass tube with galvanized steel clamps. Comes in three sizes, 1/2 inch, 3/8 inch and 3/4 inch, at \$2.00 per doz.

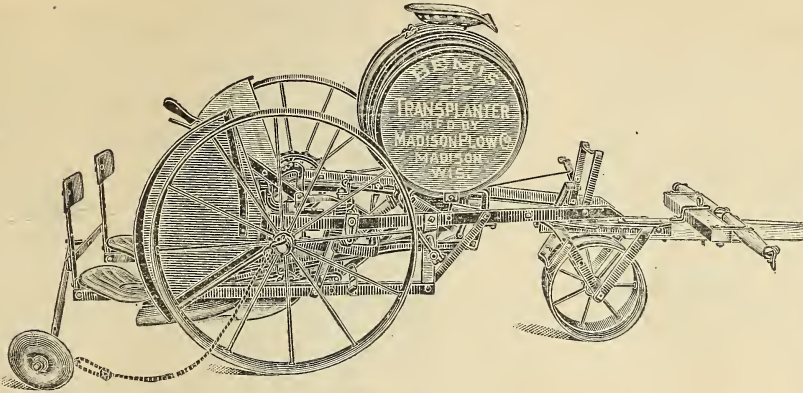
### Peerless Glass Repair Clamp For Greenhouse Roof



Simple device for repairing broken greenhouse glass. Easily adjusted from inside of house—saves labor, coal and glass. If applied as soon as crack is noticed, the pane is as strong as before and will not sag or drop out. Price, per box of 100 clamps, \$1.35; postpaid, \$1.45.

## BEMIS TRANSPLANTER

**The Bemis Plants in the Row—The Bemis Plants on Ridges—It Waters and Spaces More Accurately Than by Hand—Dry Weather Need Not Delay Your Planting If You Use a Bemis**



The First Successful Transplanter on the Market. Thirty years of continued success. You cannot afford to experiment with any other.

These machines will set plants better and the plants will thrive better and make a better crop than it is possible by hand planting. Wherever the transplanter has been introduced it has been speedily adopted by all the growers in that section, as it is a money maker and a money saver, doing away with all that backbreaking work which is incidental to hand transplanting.

All the growers in this section are using this machine. It will plant all kinds of plants—cabbage, sweet potatoes, tomatoes, etc. We also plant peas, beans, watermelons, canteloupe seed and Irish potatoes; in fact it can be made to do so many different things that it surprises one. You can plant on the level or any size ridge or any distance apart, the adjustment requiring only a few minutes. It is simple in construction and has no intricate parts to get out of order.

As the machine is now made it is as near perfect as human ingenuity can devise. The machine will pay for itself in one year.

Prices on application. Come in and Let us Show You.

## PERMANITE IS A GLAZING PUTTY OF REAL VALUE

During the year you will be solicited by many representatives of Glazing Putty manufacturers. But remember—PERMANITE is second to none in quality and durability. We extend every courtesy and privilege that the factory can give you. We allow freight on 20-gallon lots and above. Give you a machine free and save you time.

### PRICES—Black Only

60 gal. bbl.....	\$1.75 per gal.	12 gal. keg.....	\$1.85 per gal.
38 gal. bbl.....	1.75 per gal.	5 gal. keg.....	1.90 per gal.
20 gal. keg.....	1.85 per gal.	1 gal. can.....	2.00 per gal.

We have a very large stock on hand in our warehouse and can ship immediately.

PERMANITE THINNER—During cold weather it may be necessary to thin the putty. We can supply in gallon cans at \$1.75 per gal.

**We Make Covers and Paulins of any size and Weight to Protect Your Vegetable Wagons From Rain**

## FREE

We will give the following collection of either flower or garden seeds (providing you mention same when ordering), with every order of flower or garden seeds amounting to \$1.50 or over. Please mention whether flower or garden seeds are preferred.

### Flower Seeds

- 1 pkg. Dwarf Nasturtium Mixed.
- 1 pkg. Sweet Peas Mixed.
- 1 pkg. Zinnia Mixed.
- 1 pkg. Marigold Mixed.
- 1 pkg. Migonette.

### Garden Seeds

- 1 pkg. Beet Crimson Globe.
- 1 pkg. Cucumber, Davis Perfect.
- 1 pkg. Radish, Scarlet Turnip, W. T.
- 1 pkg. Tomato, Ponderosa.
- 1 pkg. Lettuce, Curled Simpson.

As the Market Prices of Field Seeds are constantly changing, we suggest when wanting seeds in quantity that you ask in advance for prices, when we will quote as low as the market will afford. Samples mailed on request.

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# THE PLANTER'S GUIDE

## TIME REQUIRED FOR MATURITY OF DIFFERENT GARDEN CROPS RECKONED FROM DAY OF PLANTING

	Days		Days		Days
Beans—String .....	45 to 65	Corn .....	70 to 120	Radish .....	30 to 40
Beans—Shell .....	65 to 75	Egg Plant .....	150 to 180	Squash—Summer .....	60 to 65
Beet—Table .....	65	Lettuce—Heading .....	65	Squash—Winter .....	125
Beets—Stock .....	100 to 120	Melon—Water .....	120 to 140	Tomato .....	150
Cabbage—Early .....	105	Melon—Musk .....	120 to 140	Turnip .....	60 to 70
Cabbage—Late .....	120	Onion .....	185 to 150	Spinach, average .....	45 to 65
Cauliflower .....	110	Pepper .....	140 to 150		

## AVERAGE AMOUNT OF GARDEN SEED AND NUMBER OF PLANTS FOR ONE ACRE

Asparagus plants, 4x1½ ft. ....	7790	Cucumbers in drills.....	5 lbs.	Peas in drills, short va- rieties .....	2 bu.
Beans, Bush, in drills, 2½ ft. ....	1½ bu.	Egg Plant, plants, 3x2 ft. ....	5 oz.	Peas in drills, tall vari- eties .....	1 to 1½ bu.
Beans, Pole, Lima, .....	15 qts.	Endive in drills, 2½ ft. ....	4 lbs.	Potatoes .....	10 bu.
Beets and Mangels, in drills, 2½ ft. ....	6 lbs.	Kale, German Greens .....	5 lbs.	Radish, in drills, 2 ft. ....	6 lbs.
Cabbage sown in outdoor beds for transplanting .....	8 oz.	Lettuce in rows, 2½ ft. ....	3 lbs.	Salsify, in drills, 2½ ft. ....	15 lbs.
Cabbage sown in frames .....	4 oz.	Leek in rows, 2½ ft. ....	4 lbs.	Spinach, broadcast .....	30 lbs.
Carrot in drills, 2½ ft. ....	4 lbs.	Melon, Musk, in hills, 4x4 ft. ....	3 lbs.	Squash, Bush, in hills, 4x4 ft. ....	4 lbs.
Celery seed .....	8 oz.	Melon, Water, in hills, 8x8 ft. ....	4 lbs.	Squash, Running, in hills, 8x8 ft. ....	3 lbs.
Celery plants, 4x½ ft. ....	20,000	Okra in drills, 2½x¼ ft. ....	8 lbs.	Turnip in drills, 2 ft. ....	2 lbs.
Corn, Sugar .....	8 qts.	Onions in rows for sets. ....	60 lbs.	Turnip, broadcast .....	3 lbs.
Corn Salad in drills, 10 in., large seed.....	25 lbs.	Onion in rows to make large bulbs .....	4 lbs.	Tomato, in frame .....	2 oz.
Cucumbers in hills, 3x4 ft. ....	2 lbs.	Parsnips in drills, 2½ ft. ....	10 lbs.	Tomato, seed in hills, 4x4 ft. ....	8 oz.
		Pepper Plants, 2½x1 ft. ....	17,500	Tomatoes, plants .....	3,800
		Pumpkin in hills, 8x8 ft. ....	3 lbs.		
		Parsley in drills, 2 ft. ....	5 lbs.		

## QUANTITY OF SEED TO SOW A SINGLE ROW OF 100 YARDS

Asparagus .....	8 oz.	Cress .....	4 oz.	Onion (for sets).....	8 oz.
Beans, Bush .....	3 qts.	Cucumber .....	4 oz.	Parsley .....	2 oz.
Beans, Lima .....	3 pts.	Dandelion .....	3 oz.	Parsnip .....	3 oz.
Beans, Pole .....	3 pts.	Egg Pant .....	1 oz.	Peas .....	2 qts.
Beet .....	5 oz.	Endive .....	2 oz.	Pepper .....	1 oz.
Broccoli .....	1 oz.	Kohl Rabi .....	2 oz.	Pumpkin .....	2 oz.
Brussels Sprouts .....	1 oz.	Leek .....	2 oz.	Radish .....	6 oz.
Cabbage .....	2 oz.	Lettuce .....	2 oz.	Rhubarb .....	4 oz.
Carrot .....	3 oz.	Melon, Musk .....	2 oz.	Salsify .....	4 oz.
Cauliflower .....	2 oz.	Melon, Water .....	3 oz.	Spinach .....	6 oz.
Celery .....	3 oz.	Mustard .....	4 oz.	Squash .....	3 oz.
Collards .....	2 oz.	Okra .....	2 oz.	Tomato .....	1 oz.
Corn .....	1 pt.	Onion (for large bulbs).....	2 oz.	Turnip .....	3 oz.

## QUANTITY OF SEED REQUIRED FOR A GIVEN NUMBER OF PLANTS


	Plants		Plants		Plants
Asparagus .....	1 oz. 800	Endive .....	1 oz. 3,000	Thyme .....	1 oz. 4,000
Cabbage .....	1 oz. 4,000	Egg Plant .....	1 oz. 2,000	Sage .....	1 oz. 1,000
Cauliflower .....	1 oz. 4,000	Lettuce .....	1 oz. 3,000	Savory .....	1 oz. 2,000
Celery .....	1 oz. 15,000	Pepper .....	1 oz. 1,000	Marjoram .....	1 oz. 1,500
Leek .....	1 oz. 1,500	Tomato .....	1 oz. 3,000	Rhubarb .....	1 oz. 500

## AMOUNT OF FIELD GRASS SEED NECESSARY FOR AN ACRE, AND NUMBER OF POUNDS TO BUSHEL

	No. lbs. to bu.	No. lbs. to acre.		No. lbs. to bu.	No. lbs. to acre.
Red Clover .....	60	12 to 15	Hemp .....	44	30 to 60
White Dutch Clover.....	60	5 to 8	Flax .....	56	28 to 42
Alfalfa .....	60	20 to 30	Buckwheat .....	52	25 to 50
Alsike Clover .....	60	5 to 8	English Blue Grass.....	24	22 to 28
Timothy .....	45	10 to 15	Oats .....	32	32 to 96
Hungarian .....	48	24 to 36	Barley .....	48	65 to 96
Millet .....	50	25 to 50	Corn .....	56	8 to 10
Red Top .....	14	10 to 15	Rye .....	56	56 to 72
Orchard Grass .....	14	28 to 42	Wheat .....	60	60 to 90
Kentucky Blue Grass.....	14	14 to 42	Sugar Cane .....	50	6 to 8
Johnson Grass .....	25	25 to 30	Sugar Cane, broadcast.....	50	50 to 75
Mixed Lawn Grass.....	14	40 to 70	Peas, Field .....	60	90 to 120

## NUMBER OF PLANTS TO THE ACRE AT GIVEN DISTANCES

Dis. apart	No. plants	Dis. apart	No. plants	Dis. apart	No. plants	Dis. apart	No. plants
12x 1 in. ....	522,720	24x24 in. ....	10,890	36x36 in. ....	4,840	60x60 in. ....	1,743
12x 3 in. ....	174,240	30x 1 in. ....	209,088	42x12 in. ....	12,446	8x 1 ft. ....	5,445
12x12 in. ....	43,560	30x 6 in. ....	34,848	42x24 in. ....	6,223	8x 3 ft. ....	1,815
16x 1 in. ....	392,040	30x12 in. ....	17,424	42x36 in. ....	4,148	8x 8 ft. ....	680
18x 1 in. ....	348,480	30x16 in. ....	13,068	48x12 in. ....	10,890	10x 1 ft. ....	4,356
18x 3 in. ....	116,160	30x20 in. ....	10,454	48x18 in. ....	7,790	10x 6 ft. ....	726
18x12 in. ....	29,040	30x24 in. ....	8,712	48x24 in. ....	5,445	10x10 ft. ....	435
18x18 in. ....	19,360	30x30 in. ....	6,970	48x30 in. ....	4,356	12x 1 ft. ....	3,630
20x 1 in. ....	313,635	36x 3 in. ....	58,080	48x36 in. ....	3,630	12x 6 ft. ....	736
20x20 in. ....	15,681	36x12 in. ....	14,520	48x48 in. ....	2,723	12x12 ft. ....	302
24x 1 in. ....	261,360	36x18 in. ....	9,680	60x36 in. ....	2,901	16x 1 ft. ....	2,722
24x18 in. ....	15,620	36x24 in. ....	7,260	60x48 in. ....	2,178	16x16 ft. ....	170



ALFALFA—THE KING OF FORAGE PLANTS

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T. LEE ADAMS SEED CO.

417 WALNUT STREET

Kansas City,

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Missouri

**SELECTED FARM SEEDS**

Alfalfa	Cane	Oats	Speltz
Barley	Blue Grass	Peanuts	Soy Beans
Broom Corn	Field Peas	Rape	Sudan Grass
Seed Corn	Feterita	Red Top	Sorghum
Cow Peas	Kaffir Corn	Rye	Timothy
Clover	Millet	Seed Potatoes	Vetch

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SWEET CLOVER—THE MONEY MAKER